



NUS
CORPORATION

A Halliburton Company

404790

9008-01-59

FIELD INVESTIGATION TEAM ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCES FACILITIES — ZONE I

NUS CORPORATION
SUPERFUND DIVISION

ORIGINAL
(RED)

TASK WORK PLAN
FOR
SAMPLING FOR THE SITE INVESTIGATION
AT

Linfield Industrial Park
Linfield, Pa

CERCLIS NO. PA 987285277

EPA DSN PA-2798 PA 0898

Submitted by: (b) (4)
(b) (4) 11-6-91
Halliburton NUS Site Manager

Submission date: 11-6-91

Reviewed by: (b) (4)
Halliburton NUS Quality Assurance Officer

Date: 12/31/91

Reviewed by: (b) (4)
Halliburton NUS Project Manager

Date: 12/30/91

Approved by: _____
EPA WAM or SIO

Date: _____

QUALITY CONTROL REQUIREMENTS

The ARCS III Screening Site Inspection Quality Assurance Project Plan with Standard Operating Procedures and Guidelines indicated will control the quality of all project-related work performed.

1. Sampling Procedures











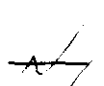
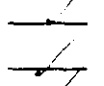
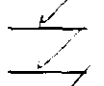
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<input checked="" type="checkbox"/>	SOG I2	Sediment Sampling
<input checked="" type="checkbox"/>	SOG I3	Surface Water Sampling
<input checked="" type="checkbox"/>	SOG I4	Groundwater Sampling
<input checked="" type="checkbox"/>	SOG I5	Purging of Monitoring Wells
<input checked="" type="checkbox"/>	SOG I6	Filtration of Groundwater Samples
<input type="checkbox"/>	SOG I7	Air Sampling
<input type="checkbox"/>	SOG I8	Drum Sampling
<input type="checkbox"/>	SOG I9	Tank Sampling
<input type="checkbox"/>	SOG I10	Waste Pile Sampling
<input type="checkbox"/>	SOG I11	Split Sampling
<input type="checkbox"/>	SOG I12	Dioxin/PCB Sampling
<input checked="" type="checkbox"/>	SOG I13	Laboratory Coordination

2. Sample Custody


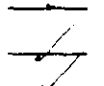
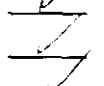
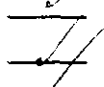
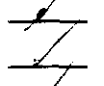
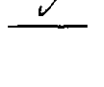

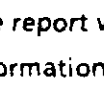


<input checked="" type="checkbox"/>	SOP I16	Documentation of Traffic Report/Chain-of-Custody
<input checked="" type="checkbox"/>	SOP I18	Documentation of Sample Tags
<input checked="" type="checkbox"/>	SOP I19	Documentation of Sample Packaging and Shipping

ORIGINAL
(RED)

3. Calibration Procedures and Frequency

	SOP I1	Use, Calibration, and Maintenance of the HNU PI-101
	SOP I2	Use, Calibration, and Maintenance of the Radiation Mini-Alert
	SOP I3	Use, Calibration, and Maintenance of the MSA Explosimeter
	SOP I4	Use, Calibration, and Maintenance of the MSA Oxygen Indicator
	SOP I5	Use, Calibration, and Maintenance of the Hach Model 19000
	SOP I6	Use, Calibration, and Maintenance of the OVA 128
	SOP I7	Use, Calibration, and Maintenance of the Enmet Gas Detector
	SOP I8	Use, Calibration, and Maintenance of the Air Sampling Equipment
	SOP I9	Use, Calibration, and Maintenance of the Omega™ PHH-49D
	SOP I10	Use, Calibration, and Maintenance of the Model 490, Thyac III
	SOP I11	Use, Calibration, and Maintenance of the Thermo Environmental Model 580B Organic Vapor Meter (OVM)
	SOP I12	Use, Calibration, and Maintenance of the DspH-3 pH/Conductivity Meter
	SOP I13	Use, Calibration, and Maintenance of the Monitox Model Compur 4100 Gas Detector and Warning System

4. Data Acquisition/Technical Approach
















	SOP II1	Documentation of Logbooks
	SOP II2	Documentation of Photographs
	SOP II3	Documentation of Telecons
	SOP II4	Documentation of Filing and Docketing
	SOP II5	Documentation of Samples
	SOP III1	Review of Technical Reports
	SOP III2	Report Format for Preliminary Assessments and Site Inspections
	SOP III3	Reporting On-/Off-Site Activities
	SOP III4	Completing Sample Logs
	SOP III5	Completing Sample Data Summaries

5. Report/Product Requirements

The report will consist of a completed EPA Form T-2070-3 and a written narrative presenting further information obtained during the completion of the assignment.

QUALITY ASSURANCE APPLICABILITY

The following sections of the ARCS III Quality Assurance Manual for Screening Site Inspections apply to the performance of this assignment.

	QAP	2.5	Work Plans
		3.1	Collection of Evidentiary Field Data
		3.2	Data Reduction, Validation, and Reporting of Evidentiary Data
		4.1	Off-Site Reconnaissance
		4.2	On-Site Inspection
		5.1	Preparation of Procurement Documents
		5.2	Subcontractor Quality Assurance Requirements
		6.1	Control of Subcontractor Procurement Activities
		6.2	Evaluation and Selection of Subcontractors
		8.1	Controlled and Accountable Documents
		8.2	Issuance and Distribution of Controlled Documents
		8.4	Technical Reports
		9.1	Chain-of-Custody
		9.2	Sample Control
		10.1	Analysis Techniques
		11.1	Implementation of Measuring and Test Equipment Controls
		12.1	Packaging, Marking, Labeling, and Shipping of Samples from Hazardous Waste Sites
		13.1	Nonconformance Reporting, Evaluation, and Disposition
		14.1	Implementation and Documentation of Corrective Actions
		15.1	Storage and Retrieval of Quality Assurance Records and Project Files

ORIGINAL
(RED)

DISTRIBUTION

The undersigned have received, read, and understood this work plan or have attended a pre-field meeting and have discussed the contents of this work plan (must be signed by all project personnel).

Name

Date

ORIGINAL
(RED)

Date of Task:	<u>Week of January 20, 1991</u>		
EPA Contact:	<u>Gregory Ham</u>	State Contact:	<u>George Danyliw</u>
Telephone Number:	<u>(215) 597-8229</u>	Telephone Number:	<u>(215) 832-6145</u>

Site Description

The Linfield Industrial Park Site is located south of Linfield - Trappe Road, east of the Schuylkill River bridge, in Montgomery County, Pennsylvania. The residential town of Linfield is adjacent to and northeast of the site; state game lands are east of and adjacent to the site.

The abandoned 125-acre industrial park is situated on mostly flat land on the eastern banks of the Schuylkill River. The western and southern portions of the site have a five- to 10-percent slope toward the Schuylkill River. Access to the site is restricted by a fence and a main gate; however, the fence does not completely surround the site. The site is composed of approximately six separate divisions: the main gate and parking area, the distillery area, the building no. 2 area, the warehouse area, the concrete pads area, and the former tank farm area.

The site has been inactive since 1986. The current owner, 888 Warehousing, Incorporated, is attempting to find a lessee or buyer for the property.

From an unknown date until 1986, building no. 2 was used for the repackaging and distribution of ethylene glycol (antifreeze) and ammonia-based cleaners. These materials were transported to the facility by rail car and tanker trucks, transferred to smaller containers, and distributed off site for sale. Evidence at the site indicates that one-gallon plastic containers may have been manufactured on site for the distribution of the antifreeze and cleaner products.

Beginning in approximately 1945, the facility operated as a United-States-Government-bonded whiskey warehousing operation. The storage and distribution of whiskey comprised the main operation. Above-ground storage tanks provided the initial storage. Whiskey was then transferred to wooden kegs for aging in the warehouses. After the aging process, the whiskey was bottled and labeled at the site. It is not known how long this operation existed at the site.

For an undetermined period (probably beginning in the early 1800s), the facility was operated as a distillery of whiskey products. Storage, aging, and distribution of the whiskey products occurred at the site.

Inspections conducted by the Pennsylvania Department of Environmental Resources (PA DER) in 1973, 1975, 1983, 1984, and 1985 revealed unauthorized discharges of industrial wastewater to the Schuylkill River. The industrial wastewater consisted of deionizer wastewater, septic tank seepage, trash-compactor oils, bottle-making room oils, air compressor pit waste oil, and non-contact cooling compressor water. Additionally, the deionizer wastewater backwash and regeneration wastes were discharged after neutralization into a lime pit. From an unknown date until 1987, the facility was issued two NPDES permits for an outfall to the Schuylkill River. The NPDES discharge point was analyzed and revealed elevated levels of biochemical oxygen demand (BOD) and ethyl glycol alcohol.

Groundwater and surface water are the sources of potable water for individuals residing in the four-mile-radius area surrounding the Linfield Industrial Park site.

The Schuylkill River is adjacent to the southern and western boundaries of the site. PA DER lists the Schuylkill River as protected for the maintenance and/or propagation of fish species indigenous to warm water and for the passage, maintenance, and propagation of migratory fishes.

Adjacent to and downstream from the site are palustrine, forested, broad-leaved, deciduous, temporarily non-tidal flooded wetlands with three linear miles of frontage.

On February 19, 1991, NUS FIT 3 conducted a preliminary assessment of the Linfield Industrial Park. During the inspection, NUS FIT 3 observed several areas of concern: 21 above-ground storage tanks, two underground storage tanks that contained unknown oils, 75 to 100 fifty-five-gallon drums (many drums were empty, although at least 25 drums had contents; one tar-like spill was observed), two power transformers, one gas pump, five tanker trucks (at least one truck was still hooked to the building via a discharge line), and 20 abandoned buildings.

Potential Targets

The major concern at the site is groundwater and surfacewater contamination. A minor concern at the site is the threat of direct contact to on-site contamination.

CUHWC utilizes an intake on the Schuylkill River (b) (9). The intake is actually (b) (9). CUHWC also relies on (b) (9). The (b) (9) (b) (9) CUHWC serves 12,506 people in the study area.

The Phoenixville water system relies solely on a surface water intake on the Schuylkill River (b) (9). This intake serves 20,000 people.

The Philadelphia Suburban Water Company (PSWC) maintains an intake on the Schuylkill River (b) (9). PSWC has an integrated system with 23 other sources of water and serves a total population of 234,037 people. (b) (6)
(b) (6) Approximately 67 people utilize (b) (6)

(b) (6)

In addition to the groundwater and surface water contamination potential, a direct exposure threat to on-site contamination exists. The site is not completely secured by fencing, and a state game land is located directly adjacent to the eastern side of the site. The site contains numerous above-ground tanks and drums with unknown contents, as well as areas of stained soils and an unlined limestone pit. The site is currently abandoned, and persons who trespass on the site could come into contact with areas of suspected contamination.

Sampling Strategy

Groundwater and surface water contamination and on-site exposure are major concerns at the subject site. Therefore, samples will be obtained from a potable water supply well, domestic private wells, an on-site production well, the Schuylkill River, and on-site surface soils.

Proposed sampling locations are as follows:

Media	Sample Number	Location	Rationale	Sample Type
Groundwater	(b) (9)	north of distillery	to determine groundwater contamination	grab
	(b) (9)	southeast of the site, across Schuylkill River	potential contamination of drinking water	grab
	(b) (9)	north of site	potential contamination of drinking water	grab
	(b) (9)	north of site	potential contamination of drinking water	grab
Surface water	SW-1	upstream on Schuylkill River	impact of runoff from on-site sources	grab
	SW-2	NPDES outfall	impact of NPDES discharge	grab

Media	Sample Number	Location	Rationale	Sample Type
	SW-3	midstream Schuylkill River (at drainage swale)	impact of runoff from on-site sources	grab
	SW-4	downstream on Schuylkill River	impact of runoff from on-site sources	grab
	(b) (9)	(b) (9)	potential contamination of drinking water	grab
	SW-6	duplicate of SW-2	quality assurance (QA)	grab
Sediment	SD-1	upstream on Schuylkill River	impact of runoff from on-site sources	grab
	SD-2	NPDES outfall	impact of NPDES discharge	grab
	SD-3	midstream Schuylkill River (at drainage swale)	impact of runoff from on-site sources	grab
	SD-4	downstream on Schuylkill River	impact of runoff on on-site sources	grab
Soil	S-1	transformer area north of distillery	source characterization and waste characteristics	grab
	S-2	by drums at maintenance shed	source characterization and waste characteristics	grab
	S-3	above-ground tank area	source characterization and waste characteristics	grab
Soil	S-4	pipe outfall south and west of warehouses	source characterization and waste characteristics	grab
	S-5	second pipe outfall south and west of warehouses	source characterization and waste characteristics	grab
	S-6	dump area west of warehouses	source characterization and waste characteristics	grab
	S-7	area of drums adjacent to dump area	source characterization and waste characteristics	grab
	S-8	duplicate of S-1	QA	grab
Quality Assurance	aqueous blank		QA	grab
	aqueous blank for solid sample		QA	grab

(b) (9)

(b) (6)

The total number of samples to be obtained, including blanks and duplicates, is 12 aqueous and 12 solid.

The above sampling plan is subject to change pending the receipt of information from Marty Powell, of EPA Emergency Response, regarding the on-site tank and drum inventories. In the event of such a change, EPA will be notified.

Personnel

Name:	Responsibility:
(b) (4)	Site Manager
(b) (4)	Site Safety Officer
(b) (4)	Sampler
(b) (4)	Sampler
(b) (4)	Sampler

Procedures

All activities will be conducted in accordance with the site safety plan and with the applicable standard operating procedures and guidelines specified in the Health and Safety Program Plan and generic sampling plan. Samples will be collected in approved sample containers, with preservatives, labels, and recordkeeping as specified in Contract Laboratory Program guidelines.

Safety Considerations

Elevated levels of ethylene glycol have been recorded in NPDES discharges to the Schuylkill River. In addition, contents of tanks and drums were inventoried and analyzed by EPA emergency personnel. These data have been requested. No other sampling data are known to exist.

ORIGINAL
(RED)

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EPA Contact: Gregory Ham State Contact: George Danyliw
Telephone Number: (215) 597-8229 Telephone Number: (215) 832-6145

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(b) (6) Approximately 67 people (b) (6)

(b) (6)

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	S-2	by drums at maintenance shed	source characterization and waste characteristics	grab
	S-3	above-ground tank area	source characterization and waste characteristics	grab
	S-4	pipe outfall south and west of warehouses	source characterization and waste characteristics	grab
	S-5	second pipe outfall south and west of warehouses	source characterization and waste characteristics	grab
	S-6	dump area west of warehouses	source characterization and waste characteristics	grab
	S-7	area of drums adjacent to dump area	source characterization and waste characteristics	grab
	S-8	duplicate of S-1	QA	grab
Quality Assurance	aqueous blank		QA	grab
	aqueous blank for solid sample		QA	grab

(b) (9)

(b) (6)

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Personnel

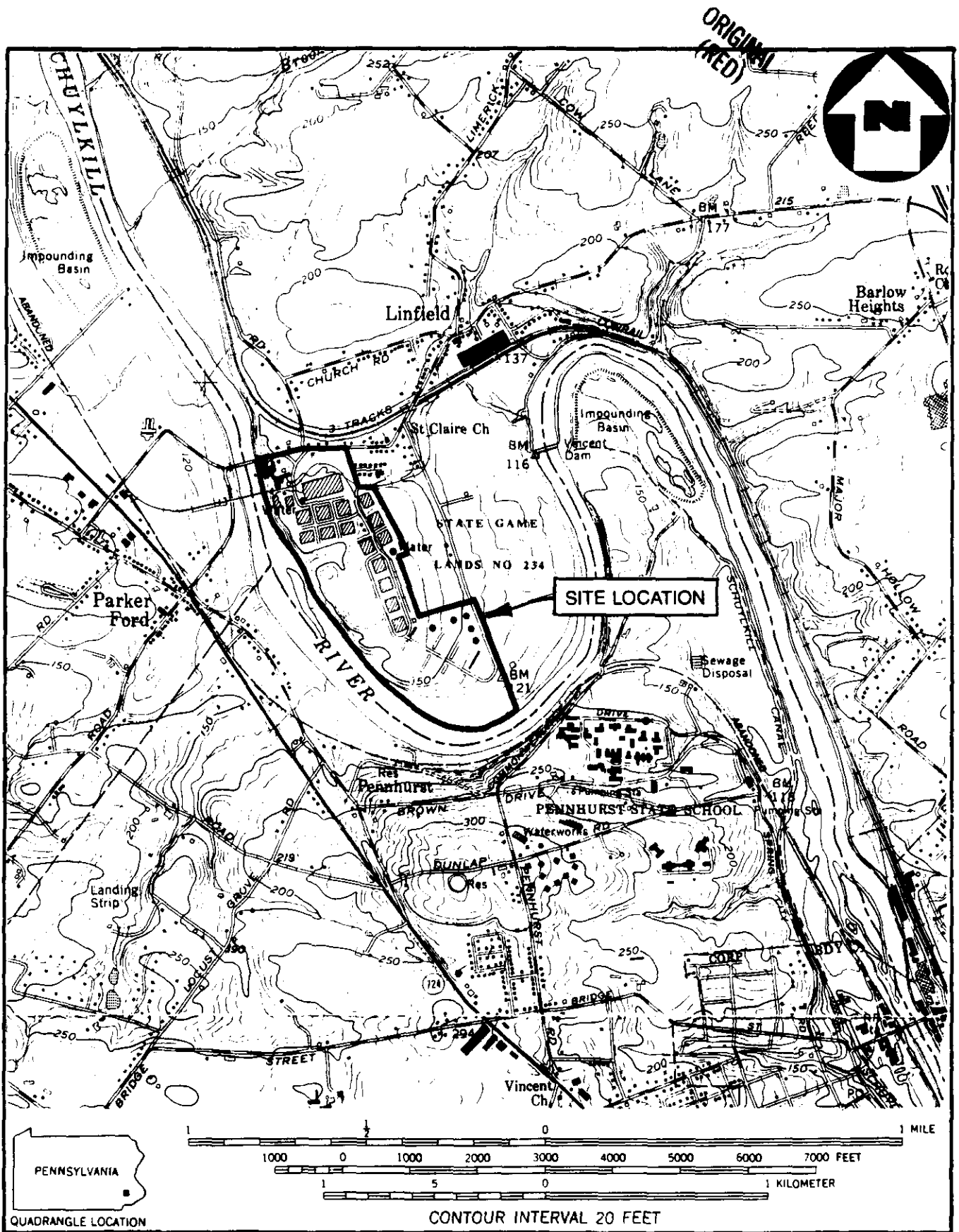
Name:	Responsibility:
(b) (4)	Site Manager
(b) (4)	Site Safety Officer
(b) (4)	Sampler
(b) (4)	Sampler
(b) (4)	Sampler

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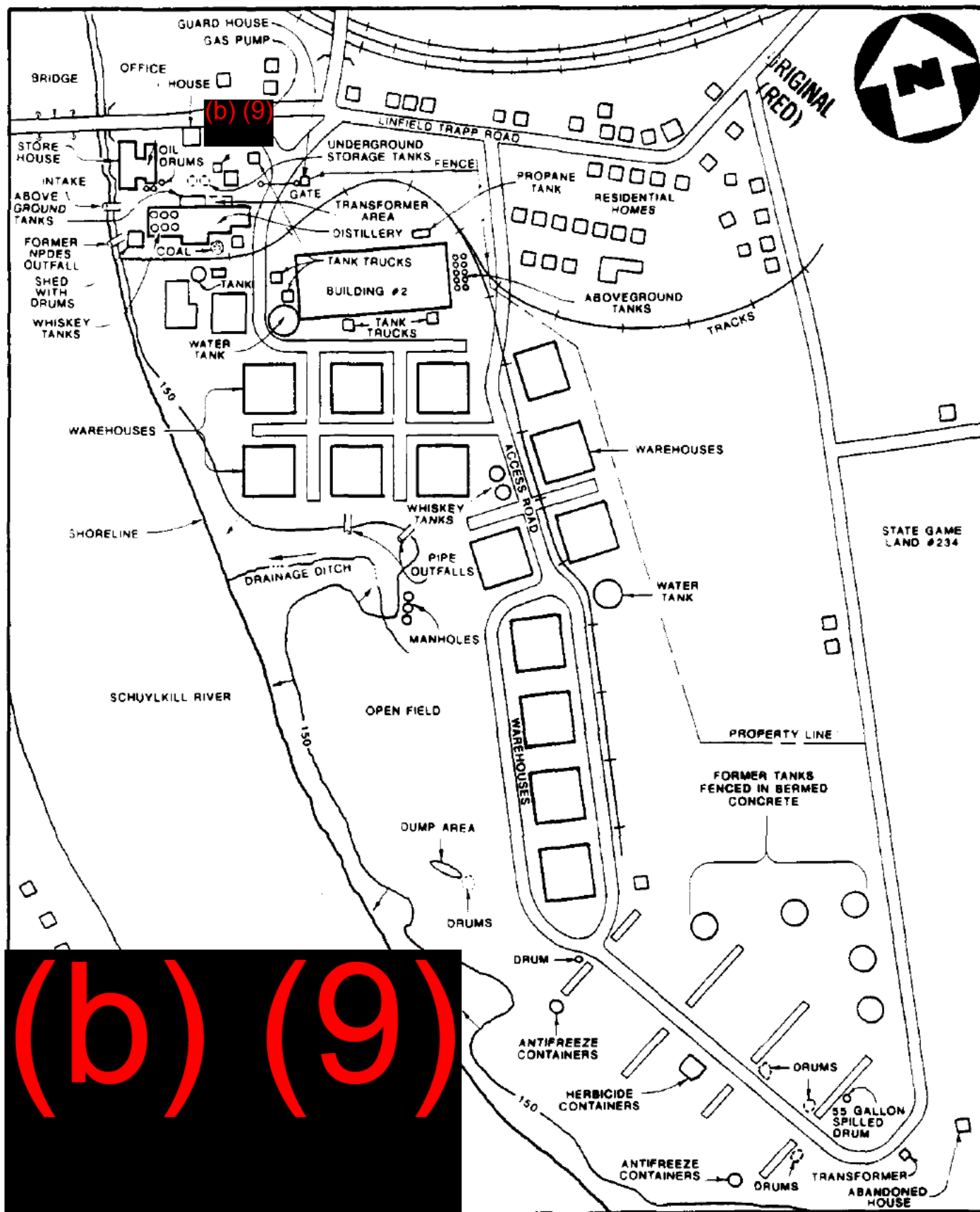
SOURCE: (7.5 MINUTE SERIES) U.S.G.S. PHOENIXVILLE, PA. QUAD.

SITE LOCATION MAP
LINFIELD INDUSTRIAL PARK, LINFIELD, PA.

SCALE 1: 24000

FIGURE





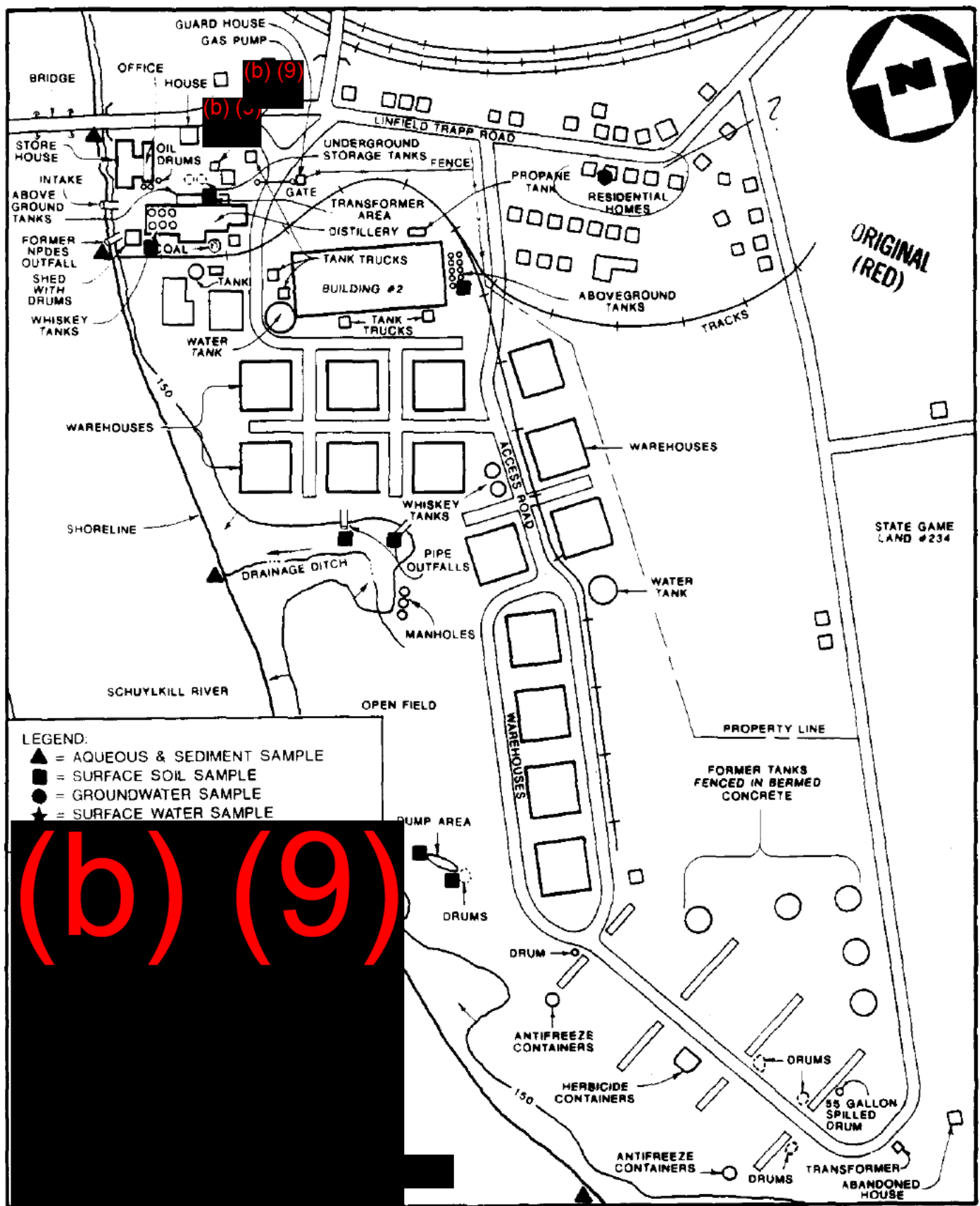
SITE SKETCH

LINFIELD INDUSTRIAL PARK, LINFIELD, PA.

(NO SCALE)

FIGURE





PROPOSED SAMPLE LOCATION MAP
 LINFIELD INDUSTRIAL PARK, LINFIELD, PA.
 (NO SCALE)

FIGURE



ORIGINAL

ORIGINAL

<u>Distance</u> (miles)	<u>Population</u>	<u>Type of Supply (P.C. or B)</u>
10	100	P.C.
20	200	P.C.
30	300	P.C.
40	400	P.C.
50	500	P.C.
60	600	P.C.
70	700	P.C.
80	800	P.C.
90	900	P.C.
100	1000	P.C.
110	1100	P.C.
120	1200	P.C.
130	1300	P.C.
140	1400	P.C.
150	1500	P.C.
160	1600	P.C.
170	1700	P.C.
180	1800	P.C.
190	1900	P.C.
200	2000	P.C.
210	2100	P.C.
220	2200	P.C.
230	2300	P.C.
240	2400	P.C.
250	2500	P.C.
260	2600	P.C.
270	2700	P.C.
280	2800	P.C.
290	2900	P.C.
300	3000	P.C.
310	3100	P.C.
320	3200	P.C.
330	3300	P.C.
340	3400	P.C.
350	3500	P.C.
360	3600	P.C.
370	3700	P.C.
380	3800	P.C.
390	3900	P.C.
400	4000	P.C.
410	4100	P.C.
420	4200	P.C.
430	4300	P.C.
440	4400	P.C.
450	4500	P.C.
460	4600	P.C.
470	4700	P.C.
480	4800	P.C.
490	4900	P.C.
500	5000	P.C.
510	5100	P.C.
520	5200	P.C.
530	5300	P.C.
540	5400	P.C.
550	5500	P.C.
560	5600	P.C.
570	5700	P.C.
580	5800	P.C.
590	5900	P.C.
600	6000	P.C.
610	6100	P.C.
620	6200	P.C.
630	6300	P.C.
640	6400	P.C.
650	6500	P.C.
660	6600	P.C.
670	6700	P.C.
680	6800	P.C.
690	6900	P.C.
700	7000	P.C.
710	7100	P.C.
720	7200	P.C.
730	7300	P.C.
740	7400	P.C.
750	7500	P.C.
760	7600	P.C.
770	7700	P.C.
780	7800	P.C.
790	7900	P.C.
800	8000	P.C.
810	8100	P.C.
820	8200	P.C.
830	8300	P.C.
840	8400	P.C.
850	8500	P.C.
860	8600	P.C.
870	8700	P.C.
880	8800	P.C.
890	8900	P.C.
900	9000	P.C.
910	9100	P.C.
920	9200	P.C.
930	9300	P.C.
940	9400	P.C.
950	9500	P.C.
960	9600	P.C.
970	9700	P.C.
980	9800	P.C.
990	9900	P.C.
1000	10000	P.C.
1010	10100	P.C.
1020	10200	P.C.
1030	10300	P.C.
1040	10400	P.C.
1050	10500	P.C.
1060	10600	P.C.
1070	10700	P.C.
1080	10800	P.C.
1090	10900	P.C.
1100	11000	P.C.
1110	11100	P.C.
1120	11200	P.C.
1130	11300	P.C.
1140	11400	P.C.
1150	11500	P.C.
1160	11600	P.C.
1170	11700	P.C.
1180	11800	P.C.
1190	11900	P.C.
1200	12000	P.C.
1210	12100	P.C.
122		

0 - 1/4	67	
1/4 to 1/2	3270	
1/2 to 1	1208	
1 to 2	2153	
2 to 3	9845	
3 to 4	5897	

B. Are any of the supplies to the population noted above contaminated? Yes ☐ No ☒ *Don't know*

If yes:

- What is the location of the well? _____

- What are the contaminants detected?

- Are any health-based benchmarks exceeded (e.g., MCLs)?

C. What is the distance to the nearest drinking water well?
(b) (9) miles

D. What is the depth to groundwater on the property?
unknown feet

4. SURFACE WATER PATHWAY

A. Identify the surface water bodies and flow rates (cubic feet per second, cfs) along a 15 stream-mile pathway. Identify the uses of each surface water body as:

DW = drinking water

I = irrigation of commercial food crops or commercial forage crops

L = watering of commercial livestock

FP = ingredient in commercial food preparation

R = major or designated recreation area

F = fishery

Surface Water Body

Schmidwill River

Cfs

1884

Use(s)

DW, E, R

B. Identify the population served by surface water intakes along the 15 stream-mile pathway.

Surface Water Body

Distance to Intake

Population Served

ORIGINAL
(RED)

Schuylkill River (SAR) Unit WIC
S.B. Phoenixville
S.B. Pottsville

(b) (9)

3126
20,000
24,722

C. Are any of the intakes to the population noted above contaminated? ☐ Yes ☒ No unknown

If yes:

- What is the location of the intake? _____
- What are the contaminants detected? _____
- Are any health-based benchmarks exceeded (e.g., MCLs)?
☐ Yes ☐ No

D. Are there any fisheries along the 15 stream-mile pathway that are contaminated? ☐ Yes ☒ No unknown

If yes:

- What is the location of the fishery? _____
- What are the contaminants detected? _____
- Are any health-based benchmarks exceeded (e.g., MCLs)?
☐ Yes ☐ No

E. Identify sensitive environments noted on PA Table 5, along the 15 stream-mile pathway and note the surface water body it is on.

Sensitive Environment

Surface Water Body

Wetlands
State Game Lands

Schuylkill River
Schuylkill River

F. Are there any sensitive environments along the 15 stream-mile pathway that are contaminated? ☐ Yes ☒ No unknown

If yes:

- What is the location of the sensitive environment? _____
- What are the contaminants detected? _____

G. What is the distance to nearest surface water body?
0 feet

H. What is the flood frequency of the nearest surface water body?
100 years

ORIGINAL
(RED)

EVALUATION CHECKLIST

Note: Information must be referenced; attach a list of references.

Site Name : Leather Inc. 10/10
TDD No. : _____
Reference No.: 3263

1. SOURCE AREAS, CONTAINMENT, WASTE QUANTITY

Complete the following for each area where hazardous substances have been deposited, stored, disposed of, or placed, plus those soils that have become contaminated from migration of a hazardous substance.

(refer to Table 1, and Tables 2-5, 3-2, 4-2, 6-3, and 6-9)

Source Area	Containment	Waste Quantity
<u>Tanks and Drums</u>	<u>Unknown, subject to investigation</u>	<u>> 1,000,000 lbs.</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

2. AVAILABLE ANALYTICAL DATA

For the media listed below, note if there is a documented observed release or the potential to release to that media. An observed is noted if a hazardous substance is detected at three times the background sample concentration or background sample quantitation limit. A potential to release is noted if wastes were disposed of in a source area which would allow contaminant migration. (refer to PA Data and Rescoring Record Table for additional criteria).

Media	Potential to Release	Observed Release	Comments
Groundwater	<u>✓</u>	_____	_____
Surface Water	<u>X</u>	_____	_____
Sediment	<u>✓</u>	_____	_____
Soil < 2 feet deep	<u>✓</u>	_____	_____
Soil > 2 feet deep	<u>✓</u>	_____	_____
Air	<u>X</u>	_____	_____
Other (specify, e.g., sludge, source)	_____	_____	_____

CERCLA ELIGIBILITY QUESTIONNAIRE

ORIGINAL
(RED)

Site Name: Linfield Industrial Tank
 City: Field State: Pa
 EPA ID Number: PA D987285277

I CERCLA ELIGIBILITY

Yes

No

Did the facility cease operations prior to November 19, 1980?

✓

If answer YES, STOP, facility is probably a CERCLA site.

If answer NO, Continue to Part II.

II RCRA ELIGIBILITY

Yes

No

Did the facility file a RCRA Part A application?

✓

If YES:

1 Does the facility currently have interim status?

2 Did the facility withdraw its Part A application?

3 Is the facility a known or possible protective filer?

(facility filed in error)

4 Type of facility:

Generator ___ Transporter ___ Recycler ___

TSD (Treatment/Storage/Disposal) ___

Does the facility have a RCRA operating or post closure permit?

✓

Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (facility did not know it needed to file under RCRA)

✓

If all answers to questions in Part II are NO, STOP, the facility is a CERCLA eligible site.

If answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If answer #2 and #3 are NO and any OTHER answer is YES, site is RCRA, continue to Part III.

III. RCRA SITES ELIGIBLE FOR NPL

Yes

No

Has the facility owner filed for bankruptcy under federal or state laws?

Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action?

Is the facility a TSD that converted to a generator, transporter or recycler facility after November 19, 1980?

SSI COST AND BUDGET MANAGEMENT FORM

ORIGINAL
(RED)

SITE: LINFIELD INDUSTRIAL PARK

WORK ASSIGNMENT NO.: 37-34-3522

WORK ASSIGNMENT AMOUNT: -

CONTROL NO.: -

MANAGER: (b) (4)

CONTRACTOR: MILLBURN NUS

TASK: SSI TASK 09

EPA ID NO.: PA09P7332814

DUMP SITE NO.: PA-2898

COUNTY/STATE: Montgomery County, PA

	TARGET DATE	ACTUAL DATE	TARGET HOURS
WORK START	11/26/91	11/26/91	(b) (4)
SAMPLING PLAN	12/11/91 * 1/6/92	1/6/92 is 2 wks. prior to sampling.	(b) (4)
FIELD REPORT ¹	2/3/92	—	(b) (4)
DRAFT REPORT ²	6/8/92	—	(b) (4)
FINAL REPORT	8/10/92	—	(b) (4)
COMPLETION	9/14/92	—	(b) (4)

TOTAL ESTIMATED HOURS:

(b) (4)

TOTAL ESTIMATED COST:

¹ Hours include sampling plus 16 hours for trip report preparation.

² Includes all management review, quality assurance, toxicology, geology, data validation, and drafting, etc.

5. SOIL EXPOSURE PATHWAY

A. What is the number of people who reside on the property or within 200 feet of contamination who occupy a residence, attend a school, or attend a day care center?

ORIGINAL
(RED)

B. What is the number of workers on the property and at a workplace within 200 feet of contamination?

6. AIR PATHWAY

A. Population residing within the designated area rings.
(reference with topographic maps using the average county population density for populations from 0 to 1/2 mile, and with GEMS for 1/2 to 4 miles)

<u>Distance (miles)</u>	<u>Population</u>
0 - 1/4	67
1/4 to 1/2	544
1/2 to 1	1208
1 to 2	11146
2 to 3	3343
3 to 4	15702

B. Determine the wetland acreage for the following rings:

<u>Distance (miles)</u>	<u>Total Wetland Acreage</u>
0 - 1/4	1-50 acres
1/4 to 1/2	1-50 acres
1/2 to 1	1-50 acres

Background/Sample Strategy

ORIGINAL
(RED)

Site: <u>infield Indochina Tank</u>	Conducted by: (b) (4)
Location: <u>infield, Indochina</u>	Project Manager: (b) (4)
Tentative field date: recon <u>11/26/91</u> sampling <u>11/26/91</u>	

PART I

Site Description (size, structures, extent of pavement)

The abandoned site is 12-15 acres approximately,
with 30 structures occupying the site. The
site is relatively desolate.

Site Activity (years, processes, waste, disposal practices)

Past: The site was used from late 1950s
to 1986 - to produce, bottle, and distribute laboratory and
unpackaging and distribute ethylene glycol and various fuels.

Present: Abandoned and inactive

	YES	NO	COMMENT
Previous sampling? groundwater	<input type="radio"/>	<input checked="" type="radio"/>	_____
soil/sediment	<input type="radio"/>	<input checked="" type="radio"/>	_____
other	<input type="radio"/>	<input type="radio"/>	_____
Have any results been obtained? (Attach on separate page)	<input type="radio"/>	<input checked="" type="radio"/>	_____
Did sample analysis include QC/BKGD?	<input type="radio"/>	<input type="radio"/>	<u>n/A</u>
Has any remediation occurred?	<input type="radio"/>	<input checked="" type="radio"/>	_____
Will samples be collected?	<input checked="" type="radio"/>	<input type="radio"/>	_____

PART II

ORIGINAL
(RED)

Sample Summary and Rationale

	<u># OF SAMPLES</u>	<u>LOCATION</u>	<u>DEPTH</u>	<u>GRAB/ COMP.</u>
<u>MATRIX</u>				
G.W.	4	Drinking water wells		Grab.
S.W.	6	up, mid, downstream rivers intake duplicate		Grab
sed.	4	up, mid, downstream at rivers		Grab
Soil	8	7 surface 1 duplicate	surface	Grab

Sample Analysis

ANALYSIS

<u>MATRIX</u>		VOA	SEMI	PCB/PEST	INORGANIC	OTHER
Aq	CLP	○	⊗	○	○	_____
Sol.	CLP	○	⊗	○	○	_____
Blank (Sol.)	CLP	○	○	○	○	_____
	CLP	○	○	○	○	_____

COMMENTS:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

ORIGINAL
(RED)

JUL 11 1991

Art Dalla Piazza
Department of Environmental Resources
Bureau of Solid Waste Management
7th Floor Fulton Bldg.
P. O. Box 2063
Harrisburg, PA 17120

Re: Linfield Industrial Park - PA-2797

Dear Mr. Dalla Piazza:

We are forwarding to you a copy of the final Preliminary Assessment report for the above referenced project. If there are any questions concerning this report please call me at 215-597-3437.

Sincerely,

A handwritten signature in black ink, appearing to read "Zelma Maldonado".

Zelma Maldonado
Site Assessment Section

Enclosure

cc: George Danyliw

R-585-4-1-5

ORIGINAL
(Red)

PRELIMINARY ASSESSMENT OF
LINFIELD INDUSTRIAL PARK
PREPARED UNDER

TDD NO. F3-9008-01
EPA DSN PA-2797
FACILITY ID NO. PAD987285277
CONTRACT NO. 68-01-7346

FOR THE
HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 27, 1991

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

(b) (4)

PROJECT MANAGER

REVIEWED BY

(b) (4)

SECTION SUPERVISOR

APPROVED BY

(b) (4)

REGIONAL MANAGER, FIT 3

ORIGINAL
RECEIVED

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APPENDICES

A

1.0 HOME WELL SURVEYS

A-1

(Red)

SECTION 1

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-7346. *This specific report was prepared in accordance with Technical Directive Document No. F3-9008-01 for the Linfield Industrial Park site, located in Linfield, Montgomery County, Pennsylvania.*

1.2 Scope of Work

NUS FIT 3 was tasked to conduct a preliminary assessment of the subject site.

1.3 Summary

The Linfield Industrial Park site is located south of Linfield - Trappe Road, east of the Schuylkill River bridge, in Montgomery County, Pennsylvania. *The residential town of Linfield is adjacent to and northeast of the site; state game lands are east of and adjacent to the site.*

The abandoned 125-acre industrial park is situated on mostly flat land on the eastern banks of the Schuylkill River. The western and southern portions of the site have a 5- to 10-percent slope toward the Schuylkill River. Access to the site is restricted by a fence and a main gate; however, the fence does not completely surround the site. The site is composed of approximately six separate divisions: the main gate and parking area, the distillery area, the building no. 2 area, the warehouse area, the concrete pads area, and the former tank farm area.

The site has been inactive since 1986. The current owner, 888 Warehousing, Incorporated, is attempting to find a lessee or buyer for the property.

From an unknown date until 1986, building no. 2 was used for the repackaging and distribution of ethylene glycol (antifreeze) and ammonia-based cleaners. These materials were transported to the facility by rail car and tanker trucks, transferred to smaller containers, and distributed off site for sale. Evidence at the site indicates that one-gallon plastic containers may have been manufactured on site for the distribution of the antifreeze and cleaner products.

08/10/12
10/10/12

Beginning in approximately 1945, the facility operated as a United-States-Government-bonded whiskey warehousing operation. The storage and distribution of whiskey comprised the main operation. Above-ground storage tanks provided the initial storage. Whiskey was then transferred to wooden kegs for aging in the warehouses. After the aging process, the whiskey was bottled and labeled at the site. It is not known how long this operation existed at the site.

For an undetermined period (probably beginning in the early 1800s), the facility was operated as a distillery of whiskey products. Storage, aging, and distribution of the whiskey products occurred at the site.

Inspections conducted by the Pennsylvania Department of Environmental Resources (PA DER) in 1972, 1973, 1975, 1983, 1984, and 1985 revealed unauthorized discharges of industrial wastewater to the Schuylkill River. The industrial wastewater consisted of deionizer wastewater, septic tank seepage, trash-compactor oils, bottle-making room oils, air compressor pit waste oil, and non-contact cooling compressor water. Additionally, the deionizer wastewater backwash and regeneration wastes were discharged after neutralization into a lime pit. From an unknown date until 1987, the facility was issued two NPDES permits for an outfall to the Schuylkill River. The NPDES discharge point was analyzed and revealed elevated levels of biochemical oxygen demand (BOD) and ethyl glycol alcohol.

Groundwater and surface water are the sources of potable water for individuals residing in the four-mile-radius area surrounding the Linfield Industrial Park site. The Citizens' Utilities Home Water Company (CUHWC) supplies water to a total population of 12,506 people in the study area. The water is obtained from an intake in the Schuylkill River (b) (9) and three wells. One well is located (b) (9); the other two wells are (b) (9) of the site. The Pottstown Municipal Water Authority (PMWA) supplies water to a total population of 9,536 people in the study area. The water is obtained from an intake located upstream in the Schuylkill River, outside the study area. Approximately 14,452 persons are assumed to obtain their water from (b) (6)

(b) (6)

The Schuylkill River is adjacent to the southern and western boundaries of the site. PA DER lists the Schuylkill River as protected for the maintenance and/or propagation of fish species indigenous to warm water and for the passage, maintenance, and propagation of migratory fishes.

Adjacent to and downstream from the site are palustrine, forested, broad-leaved, deciduous, temporarily non-tidal flooded wetlands with three linear miles of frontage.

On February 19, 1991, NUS FIT 3 conducted a preliminary assessment of the Linfield Industrial Park. During the inspection, NUS FIT 3 observed several areas of concern: 21 above-ground storage tanks, 2 underground storage tanks that contained unknown oils, 75 to 100 fifty-five-gallon drums (many drums were empty, although at least 25 drums had contents; 1 tar-like spill was observed), 2 power transformers, 1 gas pump, 5 tanker trucks (at least 1 truck was still hooked to the building via a discharge line), and 20 abandoned buildings. Based on these observations, EPA Emergency Response was contacted and is currently attempting to gain access.

SECTION 2

2.0 THE SITE

2.1 Location

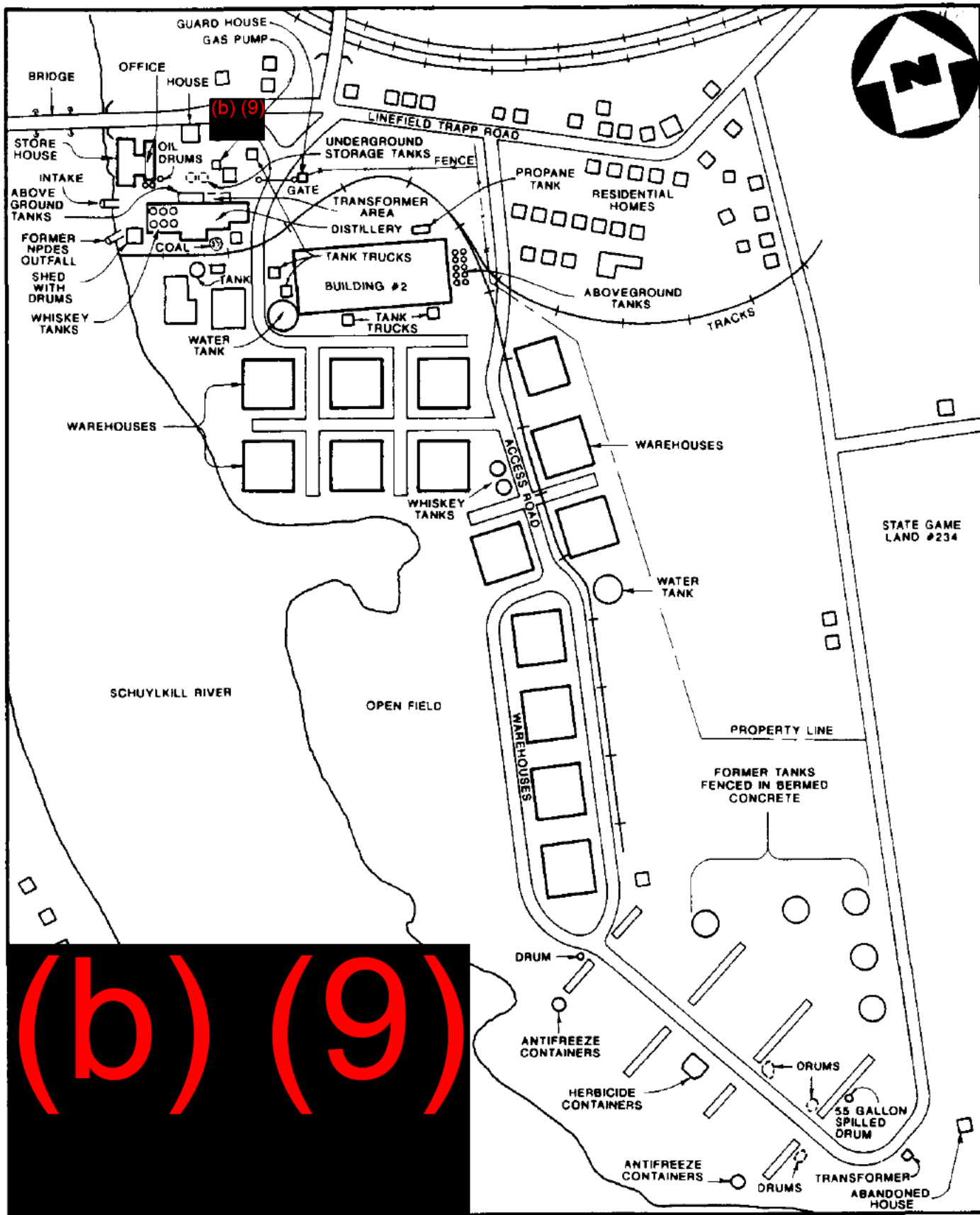
The Linfield Industrial Park site is located immediately south of the Linfield - Trappe Road and east of the Schuylkill River bridge in Montgomery County, Pennsylvania (see figure 2.1, page 2-2). The site, which is south of Linfield, Pennsylvania, can be found on the United States Geological Survey (U.S.G.S.) Phoenixville, Pennsylvania 7.5 minute series topographic map at the coordinates 40° 12' 08" north latitude and 75° 34' 38" west longitude. As measured from the southwestern corner of the Phoenixville, Pennsylvania topographic map, the site is approximately 6-3/4 inches east and 14 inches north.^{1,2,3}

2.2 Site Layout

The 125-acre industrial park site is located immediately off Linfield - Trappe Road, south of Linfield, Pennsylvania. The site is bordered to the south and west by the Schuylkill River, to the east by State Game Land No. 234, and to the north and northeast by the residential town of Linfield. ConRail Corporation railroad tracks are located in the town of Linfield, north of the site; abandoned tracks are throughout the site (see figure 2.2, page 2-3).²

The site can be divided into six divisions: the fenced parking lot, the distillery area (distillery building, office/storehouse, abandoned house, leachate field, and other buildings), building no. 2 or the ethylene glycol area, the warehouses, the concrete pads, and the former tank farm.²

Located on the northeastern portion of the site is a paved access road that leads from Linfield - Trappe Road to a 200- by 75-foot parking lot on site. A guardhouse was adjacent to the main gate. A chain-link fence separated the parking lot from the facility. An abandoned tanker truck was northwest of the guardhouse at the time of the FIT visit.²



SITE SKETCH
LINFIELD INDUSTRIAL PARK, LINFIELD, PA.
 (NO SCALE)

FIGURE 2.2



10/11/11
2/11

Located on the northwestern portion of the site was the two-story former distillery building. At the time of the FIT visit, the distillery and the area surrounding it consisted of eight whiskey vats, oil and grease drums, five above-ground storage tanks, an oven and smoke stack with a coal pile, a transformer, and abandoned trucks. The distillery building housed the equipment used in the whiskey manufacturing process, including approximately 8 empty (11,700-gallon capacity each) wooden fermentation vats. Adjacent to the distillery building on the northern side were five above-ground metal cylinder storage tanks. Three of these tanks hold approximately 5,284 gallons each; the 2 remaining tanks hold approximately 939 gallons each. The contents of these tanks are not known. Adjacent to and east of these tanks were an electrical transformer unit, and an area of stained soils was noted. Several 55-gallon drums of oil and grease were observed in this area. On the southern side of the distillery building was a coal pile that was approximately 10 by 15 by 6 feet in size (150 square feet of ground surface area was covered). A stoker oven, east of the coal pile, had piping and a smoke stack attached to southern side of building.²

North of the distillery was an abandoned house. Adjacent to the eastern side of the house was an inactive well, and south of the house was a gas pump.²

*An office/storehouse building was located northwest of the distillery. Pipes led to the Schuylkill River from the western side of the building. Two underground storage tanks, approximately 10,000 gallons each, containing oil-like liquids were located east of the building; the underground storage tanks could be accessed through manhole covers. Several 55-gallon drums were located near the southern side of the building; at least 2 drums were full and marked "Used Oil." At the bottom of the hill, adjacent to the Schuylkill River and west of the building, was a concrete underground open pit that appeared to be a surface water intake. A pump and pipeline system with a broken screen on top was observed.*²

South of the office/storehouse and west of the distillery building was a leachate field with vent stacks. A 12- by 12-foot building was located in this area. A small generator with indications of stained soils was observed in this area. Ten 55-gallon drums of oil and varnish were located inside the building. West of the leachate field was the former NPDES outfall. South of the outfall, abandoned railroad tracks crossed over the river.²

South of the distillery building were two buildings and several abandoned trucks. At the time of the FIT visit, the eastern building contained personnel lockers and pumping equipment. The contents of the western building are not known. A large above-ground tank, 30 by 50 feet in size, with approximately 264,231-gallon capacity, was located adjacent to the buildings. The trucks in this area consisted of a New York Fire Department truck and several trailer trucks.²

In the north-central portion of the site was building no. 2 or the ethylene glycol area. This building was reportedly used primarily for ethylene glycol bottling and distribution. East of the building were 10 fenced, black, above-ground metal cylinder storage tanks, 6 by 40 feet in size, with 8,455-gallon capacity. The contents of these tanks are not known. One white above-ground metal cylinder storage tank, 5 by 30 feet in size, with approximately 4,400-gallon capacity, was located on the northeastern side of the building. This white tank contained plastic white pellets. These white pellets were also on the ground around the tank. One brushed aluminum above-ground metal cylinder storage tank, 5 by 10 feet in size, with a 1,467-gallon capacity, was located here also. A white above-ground propane storage tank was located 200 feet north of the building. A loading dock was on the northern side of the building no. 2. Four abandoned tanker trucks were observed adjacent to the building. One truck on the southern side of the building was connected to the building via its discharge pipe. The contents of the tankers are not known. West of building no. 2 was a water tower.^{2,4}

Located centrally on the site and south of building no. 2 was the warehouse area. The fourteen warehouse buildings (3-story and windowless) were formerly used for the storage of whiskey barrels. Two above-ground aluminum cylinder storage tanks, 40 by 50 feet in size, with an approximately 469,244-gallon capacity, and 1 above-ground metal cylinder tank, 8 by 15 feet in size, with a 3,637-gallon capacity, were located centrally among these warehouses. The contents of these tanks are not known. A water tower was located in this area. Pipelines insulated in asbestos-like material (some pipelines had collapsed) connected the warehouses.^{2,4}

Located on the southwestern part of the site were eight concrete pads. These 30- by 250-foot concrete roads extended to the east and west from a main north-south-trending on-site road. Demolished wooden buildings were observed at each pad area. At least twenty-two 55-gallon drums were observed scattered throughout the areas. Ten drums were empty and rusted. Twelve 55-gallon drums contained an unknown liquid. Four drums were near the northwestern pad area, and eight drums were located near the southeastern pad area. One 55-gallon drum contained an oil-like residue, which had spilled and stained the ground. Several dump sites on these pads consisted of antifreeze containers, piles of antifreeze jugs and melted plastics, roofing materials, and miscellaneous wastes. Throughout the area were whiskey bottles and wooden barrels. A 12- by 12-foot building was observed west of the main road and between 2 concrete pads. Five 5-gallon containers marked "Herbicide" were observed in this building. The contents of the containers are not known. Southeast of the concrete pad areas was an abandoned house. At this location, a small electrical transformer was observed.²

Located northeast of the concrete pad areas was a former tank farm. Five former tank areas, which were individually fenced and bermed in concrete, were located in this area of the site. The tanks were not present during the FIT 3 site visit; however, the concrete containment areas still existed.²

2.3 Ownership History

The Linfield Industrial Park site has been owned by 888 Warehousing, Incorporated, of Brooklyn, New York, since 1986. The park is closed and is not utilized for any purpose.^{4,5}

Before 1986, the site was owned by Publicker Industries, Incorporated, of Philadelphia, Pennsylvania. The site representative, Bernard Shafran, stated that Mr. Publicker had owned the site since at least sometime after World War II. During the ownership by Publicker, the site was operated under different names: Continental Distilling Corporation, Publicker Packaging Services, Publicker Industries, and Linfield Industrial Park. There is no record to indicate who owned the park before Mr. Publicker.^{4,6,7,8}

ConRail Consolidated Corporation, of Philadelphia, Pennsylvania, apparently owns the rail lines throughout the site. According to the NUS FIT 3 Limerick Township site discovery, the tax office of Limerick, Pennsylvania shows the property tax as being paid by ConRail.³

2.4 Site Use History

The site has been inactive since June 1986. The current owner, 888 Warehousing Incorporated, has no immediate plans for the site unless a lessee or buyer can be found.^{4,5}

For an undetermined time until 1986, building no. 2 was used to repackage and distribute ethylene glycol (antifreeze) and ammonia-based cleaners. These materials were transported to the facility by railcar and tanker trucks, transferred to smaller containers, and distributed off site for sale. Evidence at the site indicates that one-gallon plastic containers for antifreeze and cleaners may have been manufactured on site.^{3,4,9}

For an undetermined time beginning in approximately 1945, the facility was operated as a United-States-Government-bonded whiskey warehousing operation. The storage and distribution of whiskey were the main operations. Above-ground storage tanks were the initial means of storage. Whiskey was then transferred to wooden kegs for aging in the warehouses. NUS FIT 3 observed that many wooden kegs in various stages of construction and wooden keg pieces were stockpiled, indicating that these wooden kegs were built on site. After the aging process, the whiskey was bottled and labeled at the site. The bottled whiskey product was distributed by railcars and trucks.^{2,4}

The facility was once operated as a whiskey distillery. Although the dates of this operation are not known, the distillery building appears to have been constructed in the early 1800s. Large vats were present in the distillery building. Storage, aging, and distribution of the whiskey products were the main operations.⁴

The site use before the distillery was constructed is not known.

2.5 Permit and Regulatory Action History

Permit and regulatory action relevant to the subject site is discussed chronologically below:

On September 5, 1972, a violation of the Clean Streams Law was documented by PA DER after an inspection on August 15, 1972 revealed several discharges from the company to the Schuylkill River without a permit. These discharges included deionizer wastewater, cooling water, sink wastewater, water-softener waste, and septic-tank seepage.⁸ According to PA DER correspondence dated January 22, 1974, on January 11, 1973, PA DER sent information to Continental Distilling Corporation (the operating name of the site at this time) detailing the information needed to apply for an industrial waste discharge permit.¹⁰ On February 9, 1973, PA DER sent NPDES permit project status schedule cards to Continental Distilling Corporation to be completed.¹⁰ On February 27, 1973, PA DER inspected and sampled Continental Distilling Corporation's unpermitted discharges of industrial wastewaters. No record of results was found.¹⁰ On October 31, 1973, an inspection by PA DER revealed that the facility was still in violation of the Clean Streams Law because of unauthorized discharges.¹⁰ On January 22, 1974, PA DER acknowledged that no information had been received to date from Continental Distilling Corporation regarding permit application.¹⁰

On February 7, 1974, an administrative conference was held between PA DER and Continental Distilling Corporation. During the conference, Continental Distilling submitted the NPDES permit project status cards. On February 8, 1974, PA DER determined that a payment of \$250.00 to the Clean Water Fund by Continental Distilling Corporation would be considered as final settlement of all claims for the violations of the Clean Streams Law noted during the inspection conducted on February 27, 1973.¹¹

On February 10, 1975, PA DER requested updated NPDES permit project schedule cards and the completion of a permit application.¹² According to correspondence dated July 10, 1975, on February 26, 1975, PA DER had acknowledged the receipt of NPDES permit schedule cards from Continental Distilling Corporation. The NPDES permit application was not submitted.¹³

On April 21, 1975, PA DER conducted an inspection of the Continental Distilling Corporation facility; the inspection revealed that the facility's septic system was overflowing. Samples were obtained during the inspection. One discharge from the site had a BOD of more than 80 ppm, and another discharge from the site had a BOD of more than 300 ppm and an ethyl glycol alcohol content more than 280 ppm. It is not documented who took the samples or where the samples were analyzed. PA DER considered both discharges from the site to be violations of the Clean Streams Law.¹³

On July 10, 1975, PA DER requested letter notification from Continental Distilling Corporation of the status of its NPDES permit application, the treatment or elimination of contaminated waste discharges, and the facility's plan to correct the septic system problem.¹³

On March 19, 1976, an administrative conference was held between PA DER and Continental Distilling Corporation. The following topics were covered: tile field overflows, unpermitted industrial waste discharges, NPDES application, NPDES permit project status schedule cards, and the Pollution Incident Prevention Plan (PIPP). PA DER required that the old septic tank connected with the old tile field be pumped out as soon as the new tile field was in operation. PA DER requested that updated NPDES permit project status schedule cards and an NPDES permit application be submitted. No specifics were stated regarding the PIPP.¹⁴

On April 6, 1976, NPDES project status schedule cards were accepted by PA DER.¹⁵ According to correspondence dated July 13, 1979, on May 18, 1979, PA DER requested a resubmission of the industrial waste permit application for reissue of NPDES Permit No. PA 0013293.¹⁶

On July 13, 1979, PA DER required Continental Distilling Corporation to submit a Part II (or better) permit for the discharges to the groundwater via the limestone pit adjacent to warehouse no. 10 and recommended that a treatment facility be used for neutralization and suspended solids removal.¹⁶

On January 11, 1983, PA DER notified Continental Distilling Corporation that the expiration date of NPDES Permit No. PA 0013293 was July 12, 1983.¹⁷

According to correspondence dated May 5, 1983, on April 27, 1983, PA DER conducted an inspection that revealed the discharge of non-contact compressor cooling water to a storm sewer tributary to the Schuylkill River.¹⁸

On May 5, 1983, PA DER advised Publicker Industries that unauthorized surface water discharges were occurring. The Part I NPDES application was enclosed with this letter.¹⁸

On January 22, 1985, PA DER issued a letter to Publicker Industries regarding a December 6, 1984 inspection that had been conducted by PA DER in response to citizens' complaints of eye and nasal irritation while walking near the cooling water discharge. The inspection revealed that the company was processing "CLEAN JOB," an ammonia-based cleaner. Samples obtained during the visit revealed a BOD more than 405 ppm and phenol concentrations of 5.0 ppb.¹⁹

On May 8, 1985, PA DER confirmed the results of an inspection that had been conducted by PA DER on March 7, 1985. Samples obtained during the inspection revealed that the non-contact cooling water discharged to outfall 001 contained a BOD concentration of 11.5 ppm, which violated the terms of NPDES Permit No. PA 0013293. The source of contamination was not determined.²⁰

On August 13, 1985, PA DER confirmed the results of an inspection that had been conducted by PA DER on July 17, 1985. The inspection results revealed the following sources of potential pollution at the site that could impact the outfall no. 001 discharge to the Schuylkill River: a floor drain in the blending room leading to outfall no. 001, oil tankers with stained soils into storm sewer, oils in air compressor pit discharge into outfall no. 001, trash compactor oils near the storm sewer inlet, and oil leaks in the bottle room that were discharged to the ground. These conditions were determined by PA DER to be violations of the Clean Streams Law. No Notices of Violation or penalties were filed, however.²¹

On May 11, 1987, PA DER requested a renewal application for Publicker Packaging company's NPDES Permit No. PA 0013293; the current permit would expire on December 23, 1988.²²

On February 19, 1991, NUS FIT 3 conducted a preliminary assessment inspection of the Linfield Industrial Park site.²

2.6 Remedial Action to Date

On September 9, 1985, Publicker Packaging Services contacted PA DER regarding potential pollution sources revealed in PA DER's August 1985 inspection of potential impacts on NPDES outfall no. 001 to the Schuylkill River. The following comments were offered by Publicker Packaging Services: ^{7,23}

- The floor drains in the blending area had been sealed off from the blending pit since early 1985. The drains empty into a sump from which material is pumped into a holding tank for disposal. There is a by-pass valve in the line to the holding tank, which, if opened, would allow material to flow into the blending pit. This branch was sealed off to prevent any accidental discharges.⁷
- The ground area at the bottle-making room was immediately dug out. The soil had been disposed through the Boyertown Landfill facility. The quantity of removed soil is not known.⁷

On July 14, 1975, Continental Distilling Corporation contacted PA DER regarding ethyl alcohol found in one of the discharges. The following comment was offered by Continental Distilling Corporation:²⁴

- A contractor was proposed to be hired for the removal of the existing tile field and the excavation of 150 square feet of soil and for the installation of a new stone base and tile, cover, and fill. It is not known if these activities were completed. The quantity of contaminated soil removed is not known.²⁴

On December 23, 1985, Publicker Packaging Services contacted PA DER regarding corrective actions taken in response to a spill on December 14, 1985. The following comments were offered by Publicker Packaging Services: ²⁵

- All residual antifreeze had been vacuumed or picked up with absorbent material. Eldredge Waste Management, of West Chester, Pennsylvania, had flushed and removed residual antifreeze from the drain system. A valve had been installed to prevent any liquids from entering the pipeline. The quantity of contaminated material removed is not known.²⁵

No other remediation has taken place at the site.

SECTION 3

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

Residents within the study area rely on surface water and groundwater sources for their potable water supplies. CUHWC serves residents in and around Spring City and Royersford within the study area and relies on both surface water and groundwater sources of supply. PMWA serves a very few residents in the extreme northwestern portion of the study area and relies upon a surface water source of supply. The remaining residents of the study area are assumed to maintain private wells or

(b) (6)

CUHWC supplies water within the borough of Spring City and Royersford and to small areas of neighboring Coventry, East Vincent, Limerick, and Upper Providence Townships. All water for this system is obtained from an intake on the Schuylkill River and (b) (9). The Schuylkill River intake is located (b) (9).

(b) (9)

(b) (9)

(b) (9)

Data from a 1985 reference indicate that the Schuylkill River intake has an average daily withdrawal of 0.735 million gallons per day (mgd) and that (b) (9) have average daily withdrawals of 0.225, 0.267, and 0.835 mgd, respectively.²⁸ All three of the CUHWC wells are in (b) (9) (b) (9) Formation. Well no. 1 is (b) (9) deep, with an average withdrawal of about (b) (9) per minute (gpm) and a maximum yield of (b) (9). Well no. 3 is (b) (9) deep, with an average withdrawal of (b) (9) and a maximum yield of (b) (9). Well no. 4 is (b) (9) deep, with an average withdrawal of (b) (9) and a maximum yield of (b) (9).^{28,31}

A total population of 12,506 persons is supplied with water by CUHWC. This system is fully integrated and is not interconnected with any other public water supply systems.^{26,28,30,32}

PMWA supplies water to the borough of Pottstown and to portions of the surrounding townships. The service area includes small portions of East Coventry and Pottsgrove Township that fall within the northwestern part of the study area. PMWA draws all its water from the Schuylkill River. The intake is located several miles beyond the study area and is upstream of the site. A total population of 31,500 persons is supplied with water by PMWA.^{26,27,28,32}

The Phoenixville Water System maintains a surface intake on the Schuylkill River approximately 7.3 stream miles downstream from the site as its sole source of supply. This system supplies water to a total population of 20,000 persons in the borough of Phoenixville, small areas of East Pikeland and Schuylkill Townships in Chester County, and the community of Mont Clare in Montgomery County.^{26,28,32,33}

The Philadelphia Suburban Water Company (PSWC) maintains a surface intake on the Schuylkill River (b) (9). This intake has an average withdrawal of approximately 5.77 mgd as one of 23 contributing sources for PSWC's average usage of 88 mgd. PSWC is an integrated system supplying water to 221,524 residential (X 2.79 = 618,052) and 234,037 total customers in parts of Chester, Delaware, and Montgomery Counties.^{1,34,35}

The majority of the private domestic wells within the study area produce water from the (b) (9) (b) (9) Formation, which underlies the site and most of the study area. The small percentage of remaining wells produce from the (b) (9) Formation. (b) (9)

(b) (9)

Approximately 14,452 persons utilize private wells within the study area. Based on topographic maps and on public water supply distribution areas, the (b) (9)

(b) (9)

Additional nearby (b) (9)

(b) (9)

(b) (9)

The population utilizing groundwater draws from wells within the study area is outlined in the chart on the following page:

Distance	Public Wells	Population Served	Private Wells	Population Served	Total Population
0 to 1/4			24	67	67
1/4 to 1/2	(b) (9)	3,126	194	544	3,670
1/2 to 1			433	1,208	1,208
1 to 2			1,130	3,153	3,153
2 to 3	(b) (9)	6,252	1,288	3,593	9,845
3-4			2,110	5,887	5,887
Total Population					23,530

*each private well was multiplied by the county population factor of 2.79 persons per household.

3.2 Surface Waters

The Schuylkill River is adjacent to the southern and western boundaries of the site.^{1,2} Surface drainage from the site is expected to travel southwestwardly and flow into the Schuylkill River.² The former NPDES outfall is in the northwestern part of the site. Violations of the Clean Water Act have resulted from inspections of this outfall by PA DER since 1972.^{2,8,10,21,12,13,14,15,16}

PA DER lists the Schuylkill River as protected for the maintenance and/or propagation of fish species indigenous to a warm-water habitat and for the passage, maintenance, and propagation of migratory fishes.³⁷ The Schuylkill River has an average flow of 1,888 cubic feet per second (cfs).³⁸ The site is located within the 100-year flood-prone area of the Schuylkill River.³⁹

Immediately downstream from the site are palustrine, forested, broad-leaved, deciduous, temporarily non-tidal flooded wetlands with approximately three linear miles of frontage.⁴⁰

CUHWC utilizes an intake and (b) (9)

(b) (9) The Phoenixville water system maintains a surface water intake (b) (9)

(b) (9) PSWC maintains a surface water intake (b) (9)

(b) (9)

3.3 Hydrogeology

The geologic and hydrogeologic conditions in the study area were researched as part of the site investigation. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

3.3.1 Geology

The site lies within the Triassic Lowlands Section of the Piedmont Physiographic Province. The area is predominantly an undulating plain with relief provided by low hills and ridges. These hills and ridges were formed by the differential weathering and erosion of the sandstones and shales that underlie most of the area. Steeper slopes may be formed along the sides of the Schuylkill River valley, which has been cut below the level of the surrounding countryside. The drainage pattern of the area is dendritic, and the entire study area is drained by the Schuylkill River and its tributaries.^{41,42}

The entire area is underlain by rocks of the Late Triassic age Newark Group, which includes the Lockatong, Hammer Creek, and Brunswick Formations. These sedimentary rocks have been intruded by diabase dikes and sills, also of Triassic age. These rocks are part of a large Triassic basin that trends generally northeastwardly from Virginia to New York. The average dip of the beds within this basin is to the north or northwest at about 20 degrees. Within the vicinity of the site, the bedding dips mainly to the north at about 15 degrees.^{31,43,44,45}

The rocks of the area are cut by many faults, most of which are relatively small. The nearest of these with respect to the site is located one or more miles to the north. This fault strikes to the northeast and is downthrown to the southeast, noticeably offsetting the dipping units of the Brunswick and Lockatong Formation shown on the geologic map (see figure 3.1, page 3-5). Joint systems are well developed in many of the beds of the Brunswick Formation. A very small set of joints strikes about north 30 degrees east. One or both of two less well-developed joint sets may be present at most locations. These sets strike about north 45 degrees west and north 75 degrees east. All joints are nearly vertical, with an average spacing of about six inches. Their orientation appears to be independent of the strike and dip of the beds.^{31,41,43}

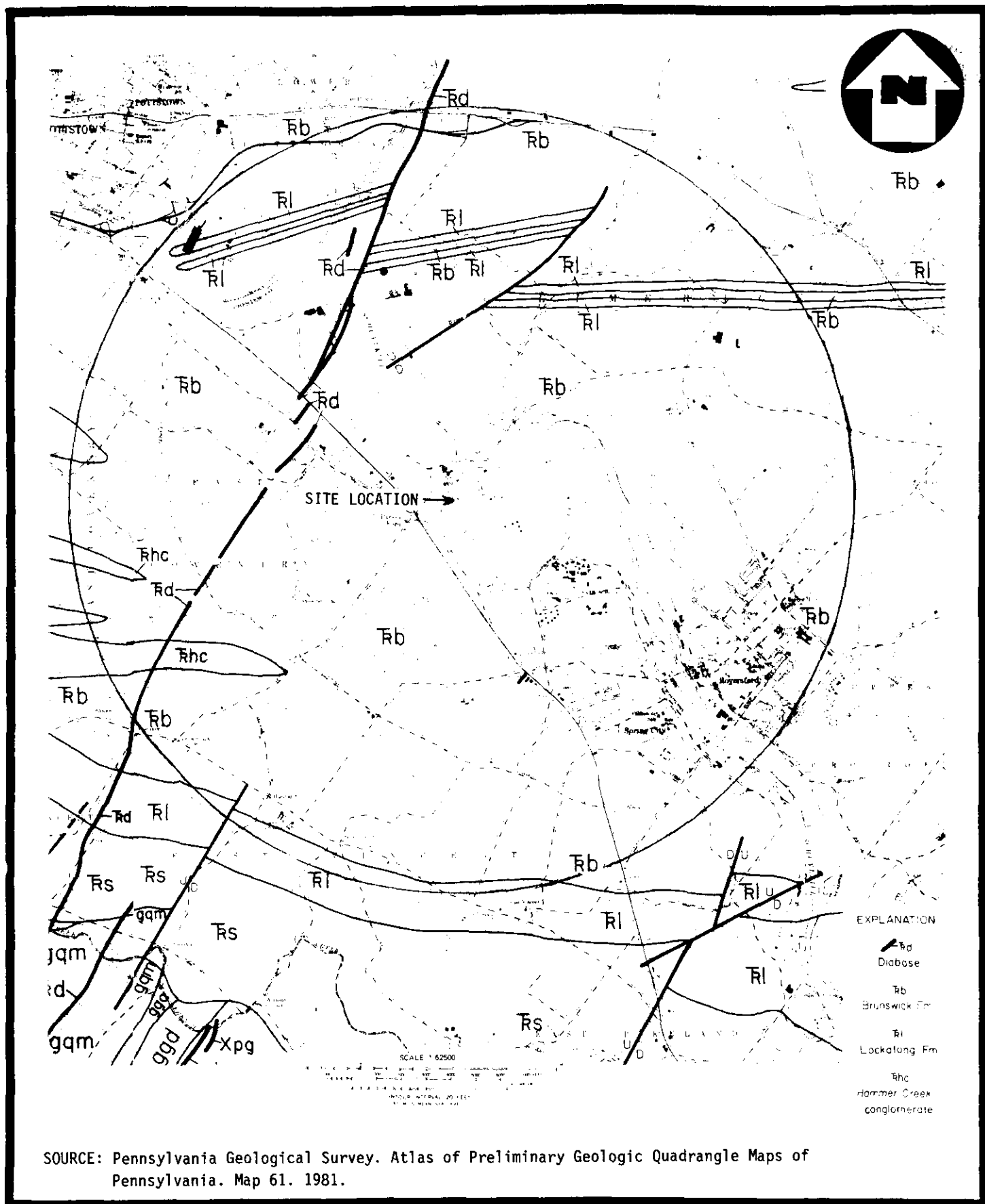


FIGURE 3.1

GEOLOGIC MAP

Limerick - Linfield Industrial Park
Limerick Twp., Montergomery Co., PA.

The formation directly underlying the site and most of the study area is the Triassic age Brunswick Formation. It consists mainly of reddish-brown shale, mudstone, and siltstone. A few very thin beds of green or brown shale are present in some places. Tough, thick-bedded, red argillite is interbedded with a dark gray argillite, typical of the Lockatong Formation, near the base of the Brunswick. Many of the shale beds are micaceous, causing them to split evenly along bedding planes. Calcite and quartz and occasionally barite and pyrite are present, partly filling joints within the Brunswick. The Brunswick Formation attains a maximum thickness of 9,000 to 16,000 feet; however, the exact thickness beneath the site is unknown.^{41,43,46}

Stratigraphically underlying the Brunswick Formation about 2.9 miles south of the site and occurring within the Brunswick Formation about 1.5 miles or more north of the site is the Triassic Lockatong Formation. It consists mainly of medium to dark gray argillite interbedded with thin beds of gray to black shale, siltstone, and marlstone. This formation is usually thick bedded or massive. It is made up largely of analcine, dolomite, feldspar, and clay with scattered pyrite. Calcite is common, especially filling joints, and quartz is a very minor constituent. The Lockatong has a maximum thickness of about 1,500 feet in this area near the Schuylkill River.^{31,41,43}

Interfingering with the Brunswick Formation about 1.8 or more miles southwest and west of the site is the Hammer Creek Conglomerate. The Hammer Creek is equivalent in age to the Brunswick, and the division of the rocks into these town units is based mainly upon lateral changes in lithologic character. Rocks of the Hammer Creek Conglomerate are much more coarse than those of the Brunswick Formation. They consist of very coarse quartz conglomerate with abundant pebbles and cobbles of gray quartzite along with minor interbeds of coarse red sandstone. Based on outcrop patterns and an average dip of 20 degrees, the Hammer Creek Conglomerate is probably 500 feet thick or less within the study area.^{31,47,48}

Intruding the Brunswick, Lockatong, and Hammer Creek Formations is a series of Triassic diabase sills and dikes. The nearest of these is located about 1.2 miles west-northwest of the site. The diabase intruded as dikes is black, dense, and very fine grained. It consists mainly of labradorite and augite. The dikes are typically 5 to 100 feet thick. The shales of the Brunswick Formation have been altered to a dark, tough hornfels close to the diabase intrusives. These alteration zones vary greatly in width but are usually between 40 and 100 feet in the vicinity of the smaller dikes.^{31,41,43}

3.3.2 Soils

Most of the soils underlying the site are classified as Made land, shale and sandstone materials, sloping. This unit covers about 80 percent or more of the site in the northern portion. The remaining 20 percent or less of the site along the steeply sloping southern edge is classified as Stony land, steep.⁴⁹

The Made land, shale and sandstone materials sloping unit is a land type resulting from the altering and mixing of soils that formed in material weathered from shale and sandstone. This unit is mainly nearly level and gently sloping but also includes some moderately sloping and steep areas. It is used for residential, industrial, commercial, and institutional developments. Dusky red to yellowish-brown shaly silt loam to channery sandy loam comprise much of this unit, and many areas consist entirely of pieces of shale. Bedrock may crop out in some places and may be as much as six feet deep in other places. The estimated permeability ranges from moderate to very slow (two to less than 0.2 inch per hour). The soil material is medium acid to very strongly acid (pH, 6.0 to 4.5).⁴⁹

The Stony land, steep unit has slopes ranging from 25 to 80 percent. These areas are stony and often contain rock ledges. Soil horizons are typically shallow, and the depth to bedrock ranges from several inches to 10 feet. Surface runoff is rapid, and internal drainage is medium to rapid. Permeability and soil reaction values are variable and are not assigned to this unit.⁴⁹

3.3.3 Groundwater

Groundwater in the area occurs under both water-table and artesian conditions. Recharge of groundwater is due to the fraction of the local precipitation that infiltrates the soil and underlying material, eventually reaching the saturated zone. (b) (9)

(b) (9)

Groundwater in the (b) (9) Formation is mainly stored in and moves through secondary forms of porosity. Due to the fine-grained nature of most of the rocks of the (b) (9), the permeability due to primary porosity is small. Fractures parallel to bedding are usually narrow and probably contribute little to the formation's permeability. The most significant openings with respect to groundwater flow are the nearby vertical joint planes, which cross each other at various angles throughout the beds of the (b) (9) Formation. These provide an interconnected series of channels through which groundwater can flow.^{41,43}

(b) (9) Formation is generally a reliable source of small to moderate supplies of water.

(b) (9)

(b) (9)

Based on topographic control and the role of rivers and streams as groundwater discharge points, the expected direction of groundwater flow at the site is to the southwest, toward the Schuylkill River.

(b) (9)

3.4 Climate and Meteorology

According to the climatological data obtained for the city of Phoenixville, Pennsylvania, located approximately six miles southeast of the site, and based on the period from 1951 to 1980, the following is offered. The average annual temperature is 53.1°F; the coldest month is January with a mean temperature of 30.1° F, and the warmest month is July with a mean temperature of 74.9°F. The average annual precipitation is 43.55 inches. The month of highest average precipitation is July, with 4.13 inches; the month with the lowest average precipitation is February, with 2.94 inches. A 1-year, 24-hour rainfall will produce 2.5 inches of rain. A 2-year, 24-hour rainfall will produce 3.5 inches of rain. The mean annual lake evaporation for the area is 32 inches. The net moisture gain is 11-1/2 inches.^{50,51,52,53}

3.5 Land Use

The site is located in a rural, mostly residential area. State Game Lands No. 234 is to the east. The Schuylkill River borders the property on the southern and western banks. The residential town of Linfield is located adjacent to and north-northeast of the site. ConRail Corporation has abandoned tracks on site.^{1,2}

64.
6

3.6 Population Distribution

The Linfield Industrial Park site is located in the rural outskirts south-southwest of Linfield, Pennsylvania. The population is as follows:^{2,3,30,32}

0 to 1/4 mile	-	67
1/4 to 1/2 mile	-	544
1/2 to 1 mile	-	1,208
1 to 2 miles	-	11,146
2 to 3 miles	-	5,343
3 to 4 miles	-	<u>15,702</u>
Total	-	34,010

Population figures are based on a count of houses in the study are multiplied by 2.79 persons per house and water supply population figures furnished by CUHWC and PMWA.^{2,3,30,32}

3.7 Critical Environments

There are two federally listed endangered birds that are expected to be found as transient species in the study area. They are the bald eagle (Haliaeetus leucocephalus) and peregrine falcon (Falco peregrinus). There is no listed critical habit for these species in the study area.⁵⁴

SECTION 4

4.0 WASTE TYPES AND QUANTITIES

Linfield Industrial Park was operated as a whiskey distillery and a bonded warehouse for the storage and distribution of whiskey products. For an unknown period of time, ethylene glycol (antifreeze) and ammonia-based cleaners were bottled and distributed from the site.^{4,13,19} The site has remained inactive since it was sold to 888 Warehousing in 1986. The condition of the site has remained the same since its closure.⁴

There are no records detailing the waste types and quantities generated at the Linfield Industrial Park; however, during the FIT preliminary assessment, numerous items of concern were observed:

Parking Lot Area

A abandoned tanker truck was observed northwest of the on-site parking lot. The truck had an approximately 8,000-gallon capacity. The truck's contents were not known.²

Distillery Area

The distillery building contains approximately 8 wooden vats (10 by 20 feet in size) that have an approximate 11,700-gallon capacity. An underground fuel tank with a pump in the distillery area had an approximate capacity of 1,000 gallons. The contents of the fuel tank are not known. North and west of the distillery building are five above-ground storage tanks. These tanks are metal; the contents are not known. Three of the cylinders are 6 by 25 feet in size with a 5,284-gallon capacity; 2 of the cylinders are 5 by 10 feet in size with a capacity of 939 gallons each. North of these tanks are 2 underground storage tanks with an approximate capacity of 10,000 gallons each; an unknown quantity of an oil-like substance was inside the tanks. Adjacent to and east of the tanks are an electrical transformer unit and an area of stained soils. The unit measures four by five by four feet in size and contains liquid. Ten 55-gallon drums containing waste oils and unknown materials were observed in this area. Southwest of the distillery building in a shed are ten 55-gallon drums marked "Oil and Varnish." The contents of the drums are not known. South of the distillery building is a metal cylinder above-ground storage tank, 30 by 50 feet in size, with an approximate 264,231-gallon capacity; the contents of the tank are not known.²

Building No. 2 Area

Located east of building no. 2 are 10 above-ground black metal cylinder storage tanks, 6 by 40 feet in size, with 8,455-gallon capacities. There are also 1 white metal cylinder above-ground storage tank, 5 by 30 feet in size with a 4,400-gallon capacity, and 1 aluminum-brushed metal cylinder above-ground storage tank, 5 by 10 feet in size with a 1,467-gallon capacity. Four abandoned tanker trucks were observed around building no. 2. One truck was still hooked to the building via a discharge pipe. The trucks have a capacity of 8,000 gallons each; the contents of the trucks were not known.²

Warehouse Area

Two aluminum cylinder above-ground storage tanks, 40 by 50 feet in size with a 469,244-gallon capacity, and 1 aluminum cylinder above-ground storage tank, 8 by 15 feet in size with a 5,637-gallon capacity, were located centrally among the warehouse buildings.²

Concrete Pad Area

At least twenty-two 55-gallon drums were observed in this area: ten 55-gallon drums were empty and rusted, and twelve 55-gallon drums contained unknown liquids. Four drums are located on or near the northwestern pad area and eight drums are located on or near the southeastern concrete pad area. One 55-gallon drum near the southeastern concrete pad area contained an oil-like residue that had spilled. A stained soil area measuring approximately three by six feet in size was observed in this area. Five 5-gallon metal drums marked "Herbicide" were observed in a shed-like building. A 20-gallon transformer is located south of the pads with stained soils.²

Former Tank Farm Area

This area once housed five metal cylinder above-ground storage tanks. The tanks were individually fenced and bermed. At an unknown date, the tanks were dismantled and removed. Currently, only the fenced concrete containment areas exist.^{1,2,4}

Miscellaneous Waste Areas

An unlined limestone pit, adjacent to warehouse no. 10, allegedly was used to dispose deionizer wastewater via groundwater after neutralization. The size, condition, and location of this pit are not known. Also, a catch basin was reportedly utilized for settling suspended solids to reduce the amount of wastewater sent to the wastewater treatment plant. According to PA DER file information, wastewater generated at the site was disposed in the Schuylkill River via the NPDES outfall. Ethylene glycol that spilled into the parking lot drainage system resulted in a contractual removal assistance by Eldridge Waste Management, of Chester, Pennsylvania. The quantity of waste removed is unknown. The soil area at the bottle-making room was contaminated with unknown substances and disposed at the Boyertown Landfill. The quantity of contaminated soils is unknown.^{7,8,10,14,16,18,20,21,25}

SECTION 5

5.0 FIELD TRIP REPORT

5.1 Summary

On Tuesday, February 19, 1991, NUS FIT 3 personnel (b) (4) conducted a preliminary assessment of the Limerick - Linfield Industrial Park site in Linfield, Montgomery County, Pennsylvania. The weather at the time of the inspection was cloudy, with temperatures in the low 50s. Photographs were taken on site (see figure 5.2, page 5-6, and the photograph log, section 5.4).

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Eugene Oestreicher
888 Warehousing, Incorporated
527 Bedford Avenue
Brooklyn, NY 11211
(717) 387-2100

Zelma Maldonado
U.S. EPA
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, PA 19107
(215) 597-8333

5.2.2 At the Site

Eugene Oestreicher
888 Warehousing, Incorporated
527 Bedford Avenue
Brooklyn, NY 11211
(717) 387-2100

Bernard Shafran
Frenkel and Hershkowitz, P.C.
Attorneys at Law
319 Fifth Avenue
New York, NY 10016
(212) 679-4666

Sidney E. Gable, S.I.O.R.
Director of Real Estate Brokerage
1626 Locus Street
Philadelphia, PA 19101
(215) 985-1100

Lee Rosenthal
Sales Associate
1626 Locus Street
Philadelphia, PA 19103
(215) 875-7754

5.2.3 Post Site Visit

Bernard Shafran
Frenkel and Hershkowitz, P.C.
Attorneys at Law
319 Fifth Avenue
New York, NY 10016
(212) 679-4666

Zelma Maldonado
U.S. EPA
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, PA 19107
(215) 597-8333

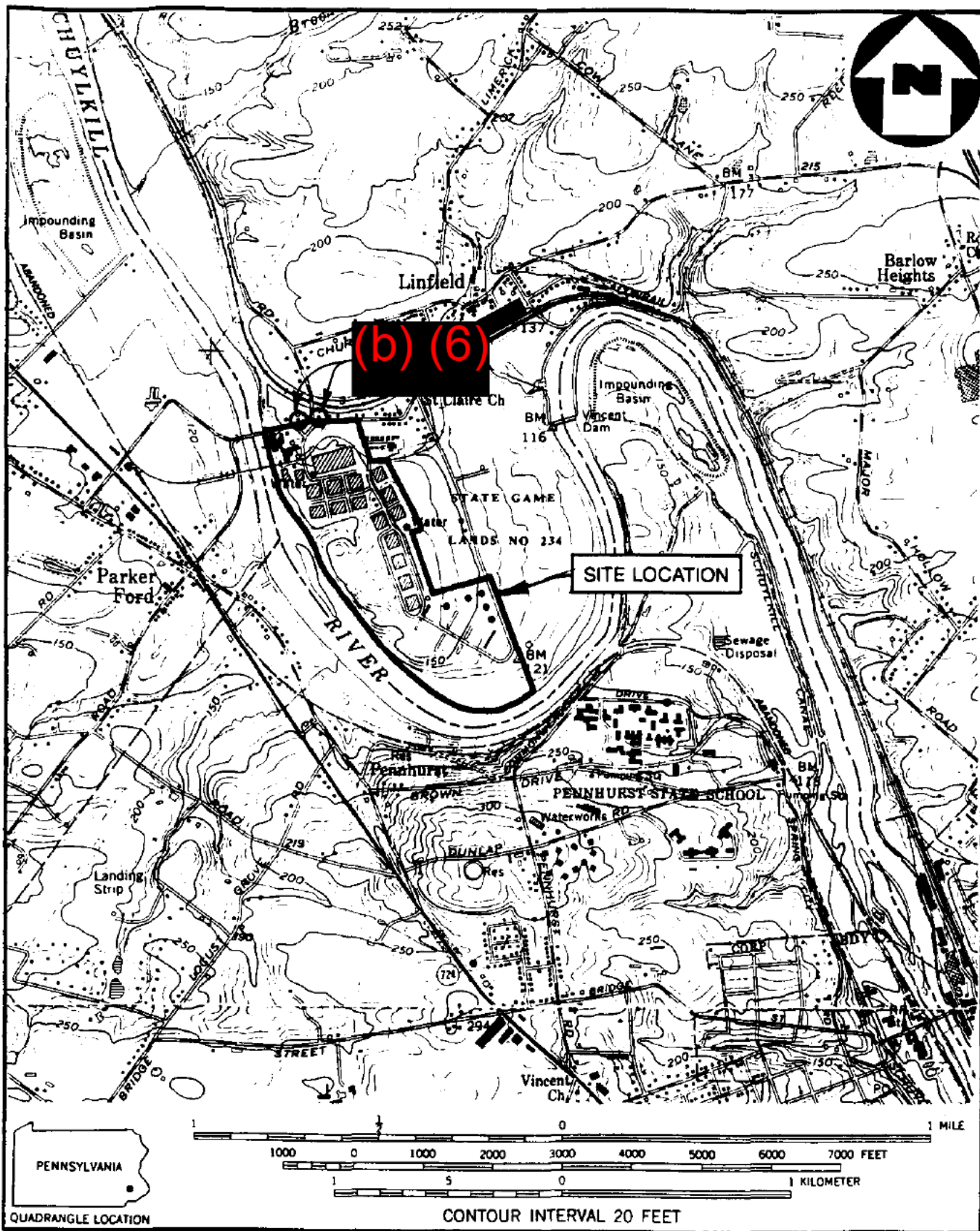
ORIGINAL
Date:

5.2.4 Water Supply Well Information

At the time of the preliminary assessment, (b) (6)

(b) (6)

(b) (6)



SOURCE: (7.5 MINUTE SERIES) U.S.G.S. PHOENIXVILLE, PA QUAD.

HOME WELL LOCATION MAP
LINFIELD INDUSTRIAL PARK, LINFIELD, PA.

SCALE 1: 24000

FIGURE 5.1



3/16/2001
BCL

5.3 Site Observations

- The HNU background reading was 0.2 ppm. The readings recorded at the two underground oil storage tanks were above background (10 ppm).
- The radiation mini-alert was set at the X1 position; no readings above background were recorded.
- The site entrance was a driveway leading from Linfield - Trappe Road to a parking lot. A locked metal gate restricted vehicular access to the production areas of the site.
- Six abandoned buildings, including a distillery, building no. 2, offices/storehouse, a house, and two storage buildings, were located in the front portion of the site.
- Fourteen warehouse buildings were located in the central portion of the site. All the buildings were connected by a series of above-ground two- to four-inch pipes. The pipes were covered with an insulation material that appeared to be asbestos. The pipes had collapsed in some areas but were mostly intact.
- One abandoned house was located on the southern part of the site; a small power transformer was nearby.
- Eight concrete pads with miscellaneous piles of debris were located at the southwestern portion of the site.
- One leachate field was located west of the distillery. Vent stacks were observed.
- Several railroad tracks were observed throughout the site. The tracks extended across a railroad bridge on the northwestern portion of the site.
- Many one-gallon plastic antifreeze containers were observed throughout the site.
- A surface water intake and the former NPDES outfall were observed on the northwestern part of the property, adjacent to the Schuylkill River.

- A gas pump was located east of the office and north of the distillery.
- Seventy-five to 100 fifty-five-gallon drums (or smaller) were observed throughout the site. The drums were in various states of deterioration, and very few were labeled. Most of the drums appeared to be empty; however, at least 25 drums contained materials. Spilled tar-like residue was observed near one drum at the southern end of the site.
- Approximately 21 above-ground storage tanks were observed: 3 in the vicinity of the warehouse buildings, 12 in the vicinity of the ethylene-glycol-processing building (building no. 2), and 6 in the vicinity of the distillery buildings.
- Four tanker trucks were observed in the vicinity of the ethylene-glycol-processing building. One tanker truck was observed parked near the entrance of the site. At least one truck was connected to the processing building via a discharge line. Five trailer trucks were observed in the vicinity of the processing building.
- The facility was adjacent to a residential community (private homes border the site), state game lands (evidence of shooting was observed at the site), and the Schuylkill River (the site may be used to access the river for fishing). Although portions of the facility were fenced, the fence was in poor condition and did not completely encircle the site. Evidence of trespassing was observed throughout the site.
- The site slope is to the west-southwest, toward the Schuylkill River.

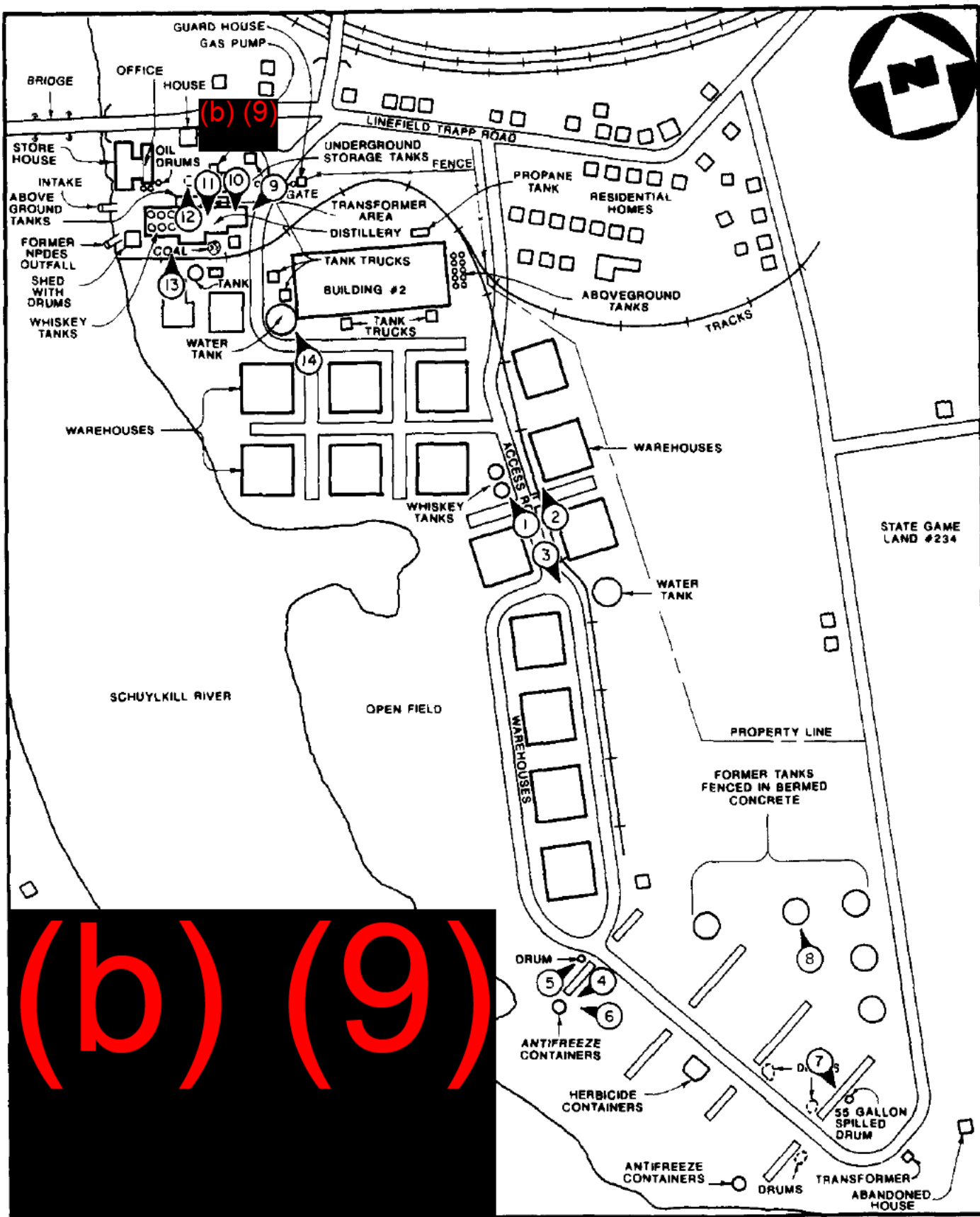


PHOTO LOCATION MAP
LINFIELD INDUSTRIAL PARK, LINFIELD, PA.
 (NO SCALE)

FIGURE 5.2



EPA REGION III
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID # 404790
PAGE # _____

IMAGERY COVER SHEET
UNSCANNABLE ITEM

Contact the CERCLA Records Center to view this document.

SITE NAME Linfield Ind Park
OPERABLE UNIT 00
SECTION/BOX/FOLDER IC Box 1 1000

REPORT OR DOCUMENT TITLE Task Work Plan for
Sampling For the Site Investigation
DATE OF DOCUMENT Nov. 6, 1991
DESCRIPTION OF IMAGERY site photos
NUMBER AND TYPE OF IMAGERY ITEM(S) 14 site photos



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

F3-9008-01

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
PA 2797

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Linfield Industrial Park	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER Linfield - Trapp Road				
03 CITY Linfield	04 STATE PA	05 ZIP CODE 19468	06 COUNTY Montgomery	07 COUNTY CODE 091	08 CONG DIST PA10
09 COORDINATES LATITUDE 4 0° 1 2' 0 8" N		LONGITUDE 7 5° 3 4' 3 8" W			

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take Linfield - Trapp Road south of Linfield for 1/2 mile. The Linfield Industrial Park is on the left, before the Schuylkill River bridge.

III. RESPONSIBLE PARTIES

01 OWNER (if known) B88 Warehousing, Incorporated	02 STREET (Business, mailing, residential) 527 Redford Avenue			
03 CITY Brooklyn	04 STATE NY	05 ZIP CODE 11211	06 TELEPHONE NUMBER (718) 387-2100	
07 OPERATOR (if known and different from owner) Publicker Industries, Incorporated	08 STREET (Business, mailing, residential) 777 West Putnam Avenue			
09 CITY Greenwich	10 STATE CT	11 ZIP CODE 06836	12 TELEPHONE NUMBER (203) 531-4500	

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: MONTH DAY YEAR ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 02 19 91 <input type="checkbox"/> NO MONTH DAY YEAR	BY (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: CONTRACTOR NAME(S): NUS Corporation FIT 3
--	--

02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN	03 YEARS OF OPERATION BEGINNING YEAR 1986 ENDING YEAR <input type="checkbox"/> UNKNOWN
--	--

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN OR ALLEGED
Possible oils, varnishes, ethylene glycol alcohol antifreeze, PCBs, herbicides, and unknown fuels are located throughout this site.

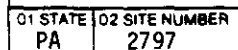
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
There is the potential for groundwater and surface water contamination from the unknown materials stored in underground and above-ground storage tanks, tanker trucks, and 55-gallon drums.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☒ A. HIGH (inspection required promptly) ☐ B. MEDIUM (inspection required) ☐ C. LOW (inspect on time available basis) ☐ D. NONE (no further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Zelma Maldonado	02 OFF (Agency, Organization) U.S. EPA	03 TELEPHONE NUMBER (215) 597-8333			
04 PERSON RESPONSIBLE FOR ASSESSMENT (b) (4)	05 AGENCY NUS	06 ORGANIZATION FIT 3	07 TELEPHONE NUMBER (215) 687-9510	08 DATE 03 29 91 MONTH DAY YEAR	





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
PA 2797

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☒ OBSERVED (DATE 2-7-84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 23,832/3 miles 04 NARRATIVE DESCRIPTION

In 1975, an unlined limestone pit was used to neutralize deionizer backwash and regeneration wastewaters. An unlined catch basin may have been used on site to temporarily store wastewaters generated at the site. There is a potential for groundwater contamination via percolation. The depth to groundwater in nearby wells ranges from 12 to 156 feet with a median of 40 feet.

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☒ OBSERVED (DATE 2-21-75) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 65,427/15 miles 04 NARRATIVE DESCRIPTION

The facility was cited several times for illegal discharge of industrial wastewaters to the Schuylkill River. The Schuylkill River is protected for the maintenance and/or propagation of fish species, indigenous to a warm-water habitat and for the passage, maintenance, and propagation of migration fishes.

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None observed, reported or expected.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 1819/1 mile 04 NARRATIVE DESCRIPTION

Five tanker trucks located on site with fire or explosive labels may present fire/explosive conditions. There are many drums and tanks on site that have the potential for fire or explosive conditions. Also, alcohol products were handled on site.

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 1819/1 mile 04 NARRATIVE DESCRIPTION

Numerous drums, tanks, and stained soil areas are accessible at the site. The site is adjacent to recreational lands and residential areas.

01 ☒ F. CONTAMINATION OF SOIL 02 ☒ OBSERVED (DATE 2-19-91) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED 50 04 NARRATIVE DESCRIPTION
ACRES

At least two spills resulting in contaminated soils have been remediated at the site by the operators. The FIT observed several areas of stained soils throughout the site.

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 87,439/15 miles 04 NARRATIVE DESCRIPTION

Drainage from the site will discharge into the Schuylkill River, which is used as a drinking water source for three public suppliers within 15 downstream miles. The nearest intake (b) (9) downstream. CUHWC also maintains a well (b) (9) the nearest home well (b) (9) of the site.

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None observed, reported or expected.

01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 89,258/15 miles 04 NARRATIVE DESCRIPTION

The population potentially affected by the site consists of those obtaining drinking water from the companies drawing from the Schuylkill River, those utilizing groundwater drawn from the study area, and those persons accessing the contaminated areas of the site.

FINAL
(d)

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS		I. IDENTIFICATION <div style="display: flex; justify-content: space-between; font-size: small;"> 01 STATE PA 02 SITE NUMBER 2797 </div>	
II. HAZARDOUS CONDITIONS AND INCIDENTS <i>(Continued)</i>			
01 <input type="checkbox"/> J. DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None observed, reported or expected.			
01 <input type="checkbox"/> K. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION <i>(include name(s) of species)</i>	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None observed, reported or expected.			
01 <input type="checkbox"/> L. CONTAMINATION OF FOOD CHAIN 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None observed, reported or expected.			
01 <input checked="" type="checkbox"/> M. UNSTABLE CONTAINMENT OF WASTES <i>(Spills/runoff/standing liquids/leaking drums)</i> 03 POPULATION POTENTIALLY AFFECTED: <u>89,258/15</u> miles	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
04 NARRATIVE DESCRIPTION There are many drums, tanks, and tankers of unknown substances. Some of these may contain unstable wastes.			
01 <input type="checkbox"/> N. DAMAGE TO OFFSITE PROPERTY 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None observed, reported or expected.			
01 <input checked="" type="checkbox"/> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
The on-site drainage will be expected to travel overland to the Schuylkill River.			
01 <input checked="" type="checkbox"/> P. ILLEGAL/UNAUTHORIZED DUMPING 04 NARRATIVE DESCRIPTION	02 <input checked="" type="checkbox"/> OBSERVED (DATE: <u>2-19-91</u>)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
Several dump areas were observed at the site.			
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS The site contains approximately 20 abandoned buildings and 14 warehouse buildings that have unknown contents/hazards.			
III. TOTAL POPULATION POTENTIALLY AFFECTED: <u>89,258/15 miles</u>			
IV. COMMENTS			
N/A			
V. SOURCES OF INFORMATION <i>(Cite specific references, e. g., state files, sample analysis, reports)</i>			
NUS FIT 3. Preliminary assessment; site visit. TDD No. F3-9008-01, February 19, 1991. PA DER. Available information.			

6/17/74
(Red)

SECTION 6

6.0 REFERENCES FOR SECTIONS 1.0 THROUGH 5.0

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01/10/12
10

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FBI

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APPENDIX A



999 WEST VALLEY ROAD
WAYNE, PENNSYLVANIA 19087
215-687-9510

Dear Home Owner:

NUS Corporation is under contract with the United States Environmental Protection Agency (EPA) to carry out an investigation of the groundwater in your area. In order to do this, we would like to ask your cooperation and request that you fill out a questionnaire about your home well. We may also want to take a sample of your water supply. Your cooperation and that of others who reside in your area will allow us to better understand the quality and use of groundwater in your neighborhood. The results of any analyses conducted on your well water can be available to you upon request.

Thank you for your most important assistance in this matter. If you wish further information regarding NUS and our relationship to EPA, please feel free to contact the NUS representative identified on the attached business card, or contact Mr. Gregory Ham of EPA at (215) 597-8299.

4/20/88

HOME WELL SURVEY

Home Owner's Name:

(b) (6)

Date:

Address:

(b) (6)

Lubetiv

Home Phone:

(b) (6)

Work Phone:

1. Please describe the type of home well you presently utilize:
(Check those which apply)

☐ Dug well☒ Drilled by a rig; if so, please identify company (name, address, and phone):

Carter - Sassafrasville

☐ Other (describe) _____

- 1a. Please estimate the following:

Year installed

unknown

Date of last service

1/25/96

Company who serviced (name, address, and phone):

New Pump

2. Please provide the following measurements of your well:

a.

(b) (9)

b.

3. Please describe the casing material used in your well:

a. Composition

☒ Iron☐ PVC☐ Galvanized☐ Terra Cotta☐ Other - Please

Specify (if known)

b. Length (if known):

unknown

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

4. Please describe, if known, any screening material used in your well:

a. Length of screen: _____

b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface):

unknown

6. Please indicate the composition of home plumbing (pipes) in your system:

_____ Iron _____ PVC _____ Galvanized _____ Lead

X Other (describe): Copper

7. Please describe the water pump used in your system:

a. Location of the pump

X Inside the well (submersible pump); Depth in well: _____

_____ Outside the well (indicate location): _____

b. Type of pump

Branch (if known): _____

Capacity (gallons per minute): _____

c. Estimate hours of pump operation per day: _____

d. Is storage tank used: ✓ Yes _____ NoType (material) Aluminum Capacity _____8. a. Do you regularly or have you ever added chemicals directly to your well?
(i.e., chlorine, clorox, etc.) _____ Yes ✓ No

If yes, date last added: _____ Approximate amount added _____

Compound (brand name): _____

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

- b. Please describe any type of water treatment you are currently using (check those which apply):

_____ Filtration

_____ Other (explain)

Type: _____

_____ none

_____ Water Softeners

Indicate Brand: _____

9. Please indicate any testing that has been done on your water:

Date of testing: none

Name of individual(s) responsible for testing: _____

10. Well Use: ✓ Drinking

Other: household ✓

11. Do you notice color, taste, or odor problems with well water?

_____ Yes ✓ No

If yes, identify: _____

Do you notice water supply problems? _____ Yes ✓ No

If yes, when: _____ how often: _____

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line ✓

Septic Tank _____

Cesspool _____

Drain Field _____

Distance to Well _____

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

✓ Yes, I will allow my well to be sampled.

_____ No, I will not allow my well to be sampled.

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

If yes, please indicate the time of day which would be convenient for us to sample.

_____ Morning

_____ Afternoon

_____ Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.

outside Concrete



399 WEST VALLEY ROAD
WAYNE, PENNSYLVANIA 19087
215-687-9510

Dear Home Owner:

NUS Corporation is under contract with the United States Environmental Protection Agency (EPA) to carry out an investigation of the groundwater in your area. In order to do this, we would like to ask your cooperation and request that you fill out a questionnaire about your home well. We may also want to take a sample of your water supply. Your cooperation and that of others who reside in your area will allow us to better understand the quality and use of groundwater in your neighborhood. The results of any analyses conducted on your well water can be available to you upon request.

Thank you for your most important assistance in this matter. If you wish further information regarding NUS and our relationship to EPA, please feel free to contact the NUS representative identified on the attached business card, or contact Mr. Ben Mykijewycz of EPA at (215) 597-3153.

HOME WELL SURVEY

Home Owner's Name: **(b) (6)** Date: _____

Address: **(b) (6)** *Kimberly* Home Phone: _____
 _____ Work Phone: _____

1. Please describe the type of home well you presently utilize:
 (Check those which apply)

_____ Dug well
☒ Drilled by a rig; if so, please identify company (name, address, and phone):

 _____ Other (describe) _____

- 1a. Please estimate the following: Year installed _____
 Date of last service _____
 Company who serviced (name, address, and phone): _____

2. Please provide the following measurements of your well:

a. **(b) (9)**
 b. Well diameter: _____

3. Please describe the casing material used in your well:

a. Composition
 _____ Iron ☒ PVC _____ Galvanized _____ Terra Cotta
 _____ Other - Please
 Specify (if known)
 b. Length (if known): _____

Continued

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

4. Please describe, if known, any screening material used in your well:

a. Length of screen: _____

b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface):

6. Please indicate the composition of home plumbing (pipes) in your system:

_____ Iron _____ PVC _____ Galvanized _____ Lead

☒ Other (describe): Copper

7. Please describe the water pump used in your system:

a. Location of the pump

_____ Inside the well (submersible pump); Depth in well: _____

☒ Outside the well (indicate location): _____

b. Type of pump

Branch (if known): _____

Capacity (gallons per minute): _____

c. Estimate hours of pump operation per day: _____

d. Is storage tank used: ☒ Yes _____ NoType (material) Iron Capacity _____

8. a. Do you regularly or have you ever added chemicals directly to your well?

(i.e., chlorine, clorox, etc.) _____ Yes ☒ No

If yes, date last added: _____ Approximate amount added _____

Compound (brand name): _____

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

- b. Please describe any type of water treatment you are currently using (check those which apply):

_____ Filtration

_____ Other (explain)

Type: _____

none

_____ Water Softeners

Indicate Brand: _____

9. Please indicate any testing that has been done on your water:

Date of testing: none

Name of individual(s) responsible for testing: _____

10. Well Use: ☒ Drinking ☒ Other: _____

11. Do you notice color, taste, or odor problems with well water? _____ Yes ☒ No
If yes, identify: none

Do you notice water supply problems? _____ Yes ☒ No

If yes, when: _____ how often: _____

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line ☒

Septic Tank _____

Cesspool _____

Drain Field _____

Distance to Well _____

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

☒ Yes, I will allow my well to be sampled.☒ No, I will not allow my well to be sampled.

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

if yes, please indicate the time of day which would be convenient for us to sample.

_____ Morning

_____ Afternoon

_____ Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.



999 WEST VALLEY ROAD
WAYNE, PENNSYLVANIA 19087
215-687-9510

Dear Home Owner:

NUS Corporation is under contract with the United States Environmental Protection Agency (EPA) to carry out an investigation of the groundwater in your area. In order to do this, we would like to ask your cooperation and request that you fill out a questionnaire about your home well. We may also want to take a sample of your water supply. Your cooperation and that of others who reside in your area will allow us to better understand the quality and use of groundwater in your neighborhood. The results of any analyses conducted on your well water can be available to you upon request.

Thank you for your most important assistance in this matter. If you wish further information regarding NUS and our relationship to EPA, please feel free to contact the NUS representative identified on the attached business card, or contact Mr. Gregory Ham of EPA at (215) 597-8299.

4/20/88

ORIGINAL

HOME WELL SURVEY

Home Owner's Name: (b) (6)

Date: _____

Address: (b) (6)
Lutzel

_____Home Phone: (b) (6)
Work Phone: _____

1. Please describe the type of home well you presently utilize:
(Check those which apply)

☐ Dug well☒ Drilled by a rig; if so, please identify company (name, address, and phone):Garber - Sassafrasville

_____☐ Other (describe) _____

- 1a. Please estimate the following:

Year installed unknownDate of last service 6/23/96Company who serviced (name, address, and phone): New Pump

2. Please provide the following measurements of your well:

a.

b.

(b) (9)

3. Please describe the casing material used in your well:

a. Composition

☒ Iron☐ PVC☐ Galvanized☐ Terra Cotta☐ Other - Please

Specify (if known)

b. Length (if known): unknown

(Red)

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

4. Please describe, if known, any screening material used in your well:

a. Length of screen: _____

b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface):

unknown

6. Please indicate the composition of home plumbing (pipes) in your system:

_____ Iron _____ PVC _____ Galvanized _____ Lead

✓ Other (describe): copper

7. Please describe the water pump used in your system:

- a. Location of the pump

✓ Inside the well (submersible pump); Depth in well: _____

_____ Outside the well (indicate location): _____

- b. Type of pump

Branch (if known): _____

Capacity (gallons per minute): _____

- c. Estimate hours of pump operation per day: _____

- d. Is storage tank used: ✓ Yes _____ No

Type (material) Aluminum Capacity _____

8. a. Do you regularly or have you ever added chemicals directly to your well?
(i.e., chlorine, clorox, etc.) _____ Yes ✓ No

If yes, date last added: _____ Approximate amount added _____

Compound (brand name): _____

10/1/88
100d)

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

- b. Please describe any type of water treatment you are currently using (check those which apply):

_____ Filtration

_____ Other (explain)

Type: _____

_____ none

_____ Water Softeners

Indicate Brand: _____

9. Please indicate any testing that has been done on your water:

Date of testing: none

Name of individual(s) responsible for testing: _____

10. Well Use: ✓ Drinking

✓ Other: household

11. Do you notice color, taste, or odor problems with well water? _____ Yes

✓ No

If yes, identify: _____

Do you notice water supply problems? _____ Yes

✓ No

If yes, when: _____ how often: _____

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line ✓

Septic Tank _____

Cesspool _____

Drain Field _____

Distance to Well _____

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

✓

Yes, I will allow my well to be sampled.

No, I will not allow my well to be sampled.

HOME WELL SURVEY

Home Owner's Name: _____

Date: _____

If yes, please indicate the time of day which would be convenient for us to sample.

_____ Morning

_____ Afternoon

_____ Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.

at side Concret.